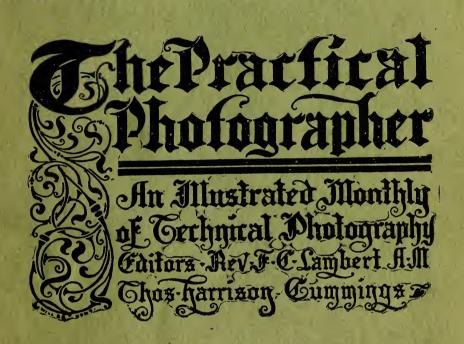
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## The Practical Photographer

No. 9.

Retouching the Negative. December, 1904.

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## The Practical Photographer

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#### Contents of Our Next Number.

The next issue (ready January 10, 1905), of The Practical Photographer will deal with the fascinating subject of Winter Work for the Camera, with and without snow, frost effects, indoor work, etc.

Our eleventh number for February, 1905, will treat of the making of Lantern Slides.

Other numbers to follow and already in active preparation will deal with Pictorial Principles of Selection, Arrangement and Composition, Gum-bichromate Printing, Portraiture, Flowers, Animals, Marine and Seascape, Clouds, Genre, Lenses, Night Photography, Chemistry, Orthochromatic Photography, Telephotography, Ozotype, Iron Printing Processes, Optical Lantern, Stereoscopy, Flash-light Work, Finishing the Print, Combination Printing, Pictorial Composition, Photo-micrography, Figure Studies, Copying, etc.

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The Editor will be pleased to carefully consider manuscript bearing on any of the subjects announced. Preference will be given manuscripts characterized by the following features:—

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- 2. Short sentences and simple language, with diagrams when needed.
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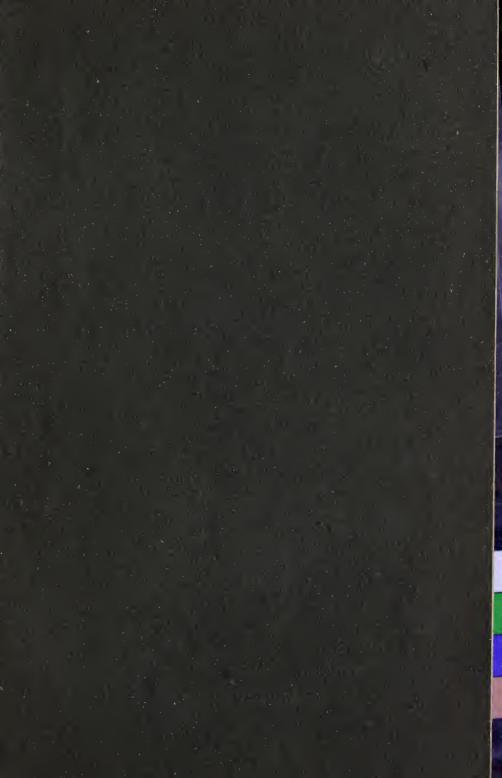
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Frontispiece.

THE

J. B. B. Wellington.

BROKEN

SAUCER.

The Pictorial Work of J. B. B. Wellington.

By THE EDITOR.

R. J. B. B. WELLINGTON is a man to be envied by reason of having made for himself a reputation in more than one direction. Not only is his name associated with a certain commercial enterprise, familiar to photographers in all parts of the world, and bearing a reputation for splendid quality—not

only is his name one well known in our foremost photographic societies where novel methods and niceties of procedure are learnedly discussed-not only is his name essential to the history of photography by reason of certain formulæ and methods which he has given to the world, but in addition to these things he has for the last ten or fifteen years been known as a man in the front rank of pictorial workers. A drawer full of medals attest his prowess when exhibitions and competitions were not nearly so many in number as now-a-days. As a judge in photographic exhibitions and on selecting committees his opinions carry great weight. The reader will admit that this is an enviable record for a man who in years has barely reached the meridian.

As a boy, his natural bent for the mechanical, engineering, and scientific paths of life, led him towards the profession of Architect, but this career was only pursued for a short time. Still to

this day mechanical matters are of the keenest interest. Among other achievements may be mentioned carpentry and cabinet work, in which domain he possesses a knowledge and skill that

many a professional worker might envy.

His introduction to photography goes back to the later days of wet-plate and the beginning of dryplate work, when young Wellington was completing his school days. From the first landscape attracted his attention, though of course, as with every beginner, frequent excursions were made into the domains of portraiture and genre. Among the painters that have influenced him may be mentioned Leader, Constable, and Gainsborough. to the poets, our artist freely confesses that he finds in them no great attraction for continuous reading, though occasionally a line or couplet is seized upon for a title. The sky and clouds of nature always have for him the attraction and charm which they ever have for all true landscape lovers. If he has a favourite class of subject for the camera probably this is pastoral landscape with evening effects. As to printing methods we are disposed to guess that carbon would be put first, while platinotype and bromide enlargements would be bracketed for second place. In former years a stand camera was the rule, but latterly this is being or has been ousted by the hand instrument. In the matter of frames and mounts we find that practically all his more recent work is framed

As regards the outlook of photography as an art, Mr. Wellington thinks that the prospect is one of much promise. The chief need is for an ever-increasing care and attention to be given to matters of light and shade. He, with all other artistic workers, feels that the essence of a work of art is the infusion of some personality—some individuality in choice of subject, light and shade, arrangement, and any required modification or control either in making the negative or the

print.

In selecting the pictures for reproduction, our aim here, as always, has been to show a typical variety of subject and treatment. That the eight

examples now given show this variety will be readily admitted on all hands. Yet behind this diversity there is a certain unity of style, or personality, not difficult to recognise, though not easy to put in words. This fact is of noteworthy interest, showing that our artist is consistent in his work and methods, and also it disproves—for the thousandth time—the thoughtless assertion that photography is not amenable to style, or personal influence.

The Latest News.—If it be true that each country has its characteristic group of pictorial subjects, then we should say that the picture which deals with human interests is characteristically English. It may be urged that genre is not the highest type of art. Be that as it may; it can hardly be gainsaid that in modern England at any rate, it is work of this order that has gained the widest notice, and is held longest in the country's pictorial memory. No less than three of the picture selected deal with homely incidents in a simple and straightforward manner which at once engages our sympathetic When the above-named picture was exhibited at the R. P. S. some years ago it received a medal, and at once commanded the admiration which it well deserves. The quietness of the background and breadth of light and shade are two features which should receive very careful attention on the part of the student.

His Only Pair contains just that acute admixture of quiet humour which first engages one's attention, and then makes one glad to remember such a picture. The two actors in this domestic drama are grouped with conspicuous craftsmanship, and needless accessories are wisely excluded. We are disposed to wish the bit of tree background had been a little less conspicuous by being a shade lighter in tone. The "garment" worn by the whimpering boy, and the apron of his thrifty mother are rendered with conspicuous technical skill, and should be carefully noted.

The Broken Saucer.—Here is another picture which well deserved the wide-spread notice attained directly it was shown. In our small reproduction,

we dare not hope to do more than hint at the fine technical quality. Let us imagine for a moment that the figures are absent. We should then have a "nice bit of a rustic building" which would not be likely to make any lasting impression on our memory. But add this appropriate group, and we have a harmonious whole. The beginner may here take the hint, that a figure with head turned away from the camera, may become the

leading figure of a composition.

A November Morning is a particularly interesting note in the chord of examples. For not only is it a marked digression from the other genre examples in general manner of treatment, but also it shows how an effective picture may be made from what at first sight would seem the most unpromising materials. It will be noted that the pictorial quality of the picture almost entirely depends on the atmospheric effect of the misty, foggy morning. It should be noted that the tall upright bits of decaying vegetation — to our right — form an essential feature in the composition, as we may readily recognise by covering them up for a moment.

A Pastoral possesses a charming, breezy character, a suggestion of "open-air-ness" which is as exceptional as it is valuable. This picture well illustrates the vital importance of the sky and cloud portion being in harmony with the sentiment of the scene. It may easily happen that we may expose a dozen plates on the same scene at intervals of a few minutes, yet, perhaps, one only contains a trace of the true sentiment. Clouds and landscape on the same negative are of course a convenience, but how seldom indeed do we thus get the right clouds! This composition particularly well illustrates the value of "suggested space and distance" by the aid of the distant line of trees, small in size, broad in light and shade, and softened in definition. The great value of this feature of the composition is at once recognised if we cover it up with a strip of paper for a moment.

Salhouse Broad is a happy illustration of how to make a picture of a somewhat ordinary subject by the introduction of an engaging sky portion. The artist will doubtless agree with our wish that the



Fig. 2. A NOVEMBER MORNING.

J. B. B. Wellington.



NORROG KREWIE RO

near part of the stream (to our right hand) were not quite so conspicuous, but the remaining part of the picture is an abundant compensation for this regret. In this composition we have well exemplified the old and well-tried maxim of "the three planes of a picture," viz., foreground, middle and extreme distance. Imagine for a moment any one of these three absent in this case and we can readily see how the present charming effect would

greatly suffer.

On Wisley Common.—Here we have a quite typical bit of English landscape. The cottage to our left is an acceptable symbol and sign of human interest treated with discriminative reticence. The sky portion also is of considerable importance in making the whole result a harmonious entity. The student should not fail to notice that the margins of the picture are wisely kept quite subdued so that the interest of the scene is kept well within the picture. This is of especial importance where we have a road or stream coming up to the margins.

Eventide.—Perhaps this is the best known of all Mr. Wellington's exhibited work. This may be quoted as a typical example of academic composition and illustrates many of the recognised principles. One need hardly point out that the key note of the composition is the luminous glow of the sky — so characteristic of eventide. principle of harmony or unity of general effect is here well exemplified, and tempts as to expatiate upon this important matter, did circumstances permit.

But alas, exigencies of space have compelled us to eliminate many of our notes on these charming pictures. Yet we cannot conclude without a word of very hearty and sincere thanks to Mr. Wellington for his great kindness in permitting us to select these examples from the enviable collection of

pictures which adorn his beautiful home.



## Preliminary Note on Retouching. By THE EDITOR.

HY does a negative need retouching is a natural question from a beginner. The answer is, "To correct its defects." A sitter may have moved during the exposure. He may have freckles, scars, blotches which are exaggerated by the plate. The face may be slightly

moist and shining from perspiration. There may be markings due to dust particles, scratches, etc. A piece of furniture (such as the arm of a chair) may show a bright streak of reflected light.

Again, the prevalence of the hand camera and rapid exposures is accompanied by a large proportion of somewhat under-exposed and often overdeveloped negatives, which exaggerate light and shade contrasts. The beginner's fondness for "everything quite sharp" by means of a small stop is often accompanied by under-exposure, or a strained expression on the sitter's face in consequence of prolonged exposure. Errors of judgment in exposure or development yield effects far from satisfactory. These are among the reasons which render retouching needful. Again, a technically excellent negative may not yield a satisfactory Scientific truth is not necessarily artistic likeness. truth.

Many beginners think that retouch-Misconceptions. ing is very difficult. There is, however, no difficulty that cannot be overcome by a very moderate measure of patience and practice. Others hastily condemn all retouching because they have seen examples of bad work. But to judge any procedure from cases of defective manipulation would equally condemn all photography from our occasional failures. Others, again, expect far too much from the retoucher, and rely on it to cure careless manipulation.

## Introduction to Retouching.

By STANLEY C. JOHNSON, B.A.



VERY photographer who practises portraiture should have some knowledge of retouching. He should be able to tone down the camera's exaggerations and to do away with the sitter's temporary shortcomings. Fortunately, a short time spent in careful study will enable the

veriest novice to do much in this direction, though, of course, the whole art takes years to learn.

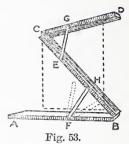
The first thing to consider is The Negative. whether our selected negative is ready for retouching. Pencil work cannot modify the depth of the great masses, therefore if they are either too thick or too thin we must first of all resort to reducing or intensifying, local or otherwise. If upon this point we need any guiding, then the seventh number of the Practical Photographer should be consulted. This being done, a rough untoned print on P. O. P. must be made. By studying it at a distance and then closely we may learn the chief defects of our negative. A mental note should be made of the skin imperfections, the graduations of light and shade and the expression of the features.

Requirements. The requirements are few and inexpensive, especially if the necessary desk can be made at home. A desk, a pencil holder with HHH leads, a bottle of retouching medium, a retouching knife, a red sable brush and a sheet of the finest glass paper complete the list. Many other articles may be conveniently pressed into service, but as these will be found in every household they need not be mentioned here.

The Desk. Its construction is not difficult, being well within the capabilities of the average amateur carpenter. Three

pieces of wood will be necessary. Eleven inch deal boards are a standard size and just wide enough for our purpose. Sections AB and CD (Fig. 53) should be about 14 inches long and section BC 18 inches. An opening of 41 square inches should be cut in the centre of this latter

section. One inch below its bottom edge, a thin strip of wood six inches long is fixed. Struts are then hinged at E and F and made to slip into holes at G and H. The three sections are then fastened together by four brass hinges. A piece of black twill, such as a discarded focussing cloth, is then placed over the desk and allowed to hang down as



indicated by the dotted lines in fig. 53. The whole need cost no more than one shilling and sixpence.

If the desk is purchased, do not buy one with various sized carriers that enable the whole of a negative to be seen at the same time. It is distracting and tiring to the eyes to have the light reflected through an area larger than about lantern-plate dimensions. We shall also want to twist and turn our negative round to get in different kinds of strokes. A carrier does not easily permit of this.

is usually sold as a liquid, but The Retouching it may also be had as a powder. Medium The former acts as an adhesive for the lead, whilst the latter unfortunately allows it to be more readily wiped off. The powder is, however, always of the same consistency, never too tacky nor too thin. This naturally cannot be said of the former. It is best used on thin negatives, as it slightly increases the density. All things being considered, the beginner had better use the liquid medium. Take a silk rag, wrap it round the index finger, invert the medium bottle, remove the moistened cork and dab it once or twice on the film side of the negative just where the retouching will be done. Then, with the finger tip, rub the medium in a circular direction until it



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F1g. 5.

J. B. B. Wellington.

#### INTRODUCTION TO RETOUCHING.

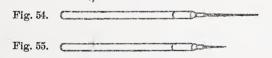
is almost dry. Take care to cover all parts that will be treated with the pencil, and see that the edge of the liquid will not make a printable line.

When not in use, the medium bottle should be well corked, or evaporation will convert the contents into a sticky substance totally useless for our work.

If the medium is really good it will be found expedient to apply it a few hours previous to retouching. This will offer a delightful surface for taking the pencil.

If really good medium is wished for, buy a well-known brand. Do not be tempted to buy a concoction that is twice as cheap and four times as hard to work on. Some media never thoroughly dry, but are always sticky when out in the sun. Others allow the pencil markings to be washed away during the varnishing process. All these kinds must be guarded against or our prints will surely be ruined.

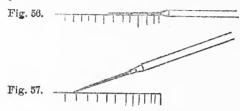
The Pencil. The best sort for our work is the holder with adjustable lead. If the ordinary wood-cased pencil be used, we must be prepared for certain drawbacks, the chief is that the pencil being constantly trimmed, the length held in the hand continually changes. This, of course, helps to make the touch uncertain.



The lead should project at least one inch from its holder (see figure 54). Figure 55 shows the method to be avoided, as in this case the hand would obscure the view of the tip.

The pencil must have a pin-like point, in fact it cannot be too pointed. It is most conveniently sharpened by being placed almost flat on a sheet of the finest glass paper and then gently rotated. Figure 56 shows the correct method, whilst figure 57 illustrates a favourite plan with beginners, but an entirely

wrong one. Some people work in such a way that their touch keeps the pencil automatically sharpened. These lucky people, it may be added, are in a minority.



Position at the Desk.

A great deal depends on how we sit. Select an easy position, but be sure that the backbone is erect and that the shoulders are well back. These precautions are specially necessary if considerable time is to be spent at the work. The right elbow should be comfortably resting on the table and the wrist just below the negative. To ensure this, it will perhaps be necessary to raise either the desk or the elbow by means of books or light wooden boxes, but comfort must be secured.

The desk will usually give most satisfaction when the base and the slanting board form an angle of 70 degrees. But what is suitable on one occasion may not be so on another. Therefore our desk must be provided with slots to permit of the angle being

varied.

Placed near to the right elbow, there should be a sheet of fine glass paper, for the pencil will require constant sharpening. A small pad of velvet should also be at hand in which the lead may be rolled to free it from the small particles which cling to the

point as it is being pointed.

The Illuminant. We are often told that a window facing north is most suited to our requirements, for the light will then be more constant. A more reasonable plan is to sit near the window that commands the best light at the particular time. When that fails, remove the desk to another window. In fact, secure the best light available, irrespective of whether it is a north light or otherwise.

If the day is cloudy place a hand-mirror on the base-board of the desk and arrange it at an angle so that it will reflect light on the negative. If that does not suffice, darken the room and place a lighted lamp about a foot behind the desk. The ruby lamp, with the glass removed, often proves to be the very thing.

The Diffuser. To ensure even lighting, a diffuser must be placed between the negative and the lamp. Commercial diffusers are sold at a shilling or so, but a makeshift one may often be devised. Any glass globe free from pattern and filled with water will answer the purpose.

Sometimes the light will be too strong for the eyes. Then it is necessary to pin a piece of tissue

paper over the opening in the desk.

There are, at least, six serviceable Various forms forms of stippling, and the reof Stippling. toucher should endeavour to master Figure 20 gives an exaggerated idea of each. A is the most useful. It must be understood, however, that in reality the dots should be placed so near each other that one cannot be detected from another. Dots, crosses and commas (A C and E) are most useful where roundness has to be suggested, as on the cheek, the chin, and the forehead. Cross hatching and straight lines (B and D) are more in keeping with the idea of flatness, as under the inside edge of the eyes or on the neck. Curls as shown in F are expedient where large masses have to be worked up quickly.

Individual markings must be so small and so closely knitted together that they only show in toto. Remember that retouching marks should never be apparent. If the dots or commas are seen in the finished print, we may be sure that our work is still unsatisfactory. If coarseness can be detected in the print and not in the negative, then it will be advisable to retouch with the aid of a hand-glass until greater experience has been attained.

Hold the Pencil loosely and lightly. An iron grip is not wanted. If the touch is naturally a light one, then a pencil softer than HHH may be used and so a small advantage secured.

Work with the pencil at an angle of 30° with the negative, except when making dots. With these it must be almost at right angles.

Work with a System.

Begin by removing the skin marks, then lessen the furrows or creases, and finally attend to the modelling.

Do not, on the other hand, work up the skin, the furrows and the modelling of one part of the face before commencing on the other. It is a bad plan that may lead to all sorts of trouble with the lighting.

Begin on the top left-hand corner of the head, and work downwards. In this way we are never hindered from seeing just how our work is

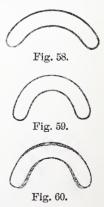
progressing.

Do not stop in one place too long. Be continually taking rough prints of the different stages of the work. What to aim at and what to avoid will then

be quickly learned.

The Features. One very important part of the retoucher's business is to be able to sum up the merits and demerits of the negative he is about to improve. He must be able to tell almost at a glance, what are the salient points that give the sitter his expression and he must know how to modify that expression if needs

be. The sitter who feels over-conscious when his photograph is being taken, usually contracts certain muscles around the corner of his lips and raises his eyebrows. mouth is easily set right, but with the eyebrows the remedy is not quite so obvious. Figure 58 represents the eyebrow in its usual and 59 in its astonished shape. Note that the crest is more elevated and that the inside lower ends are nearer together than usual. Fig. 60 shows how, by cutting off the two corners, and lowering the upper crest, we may bring the eyebrow



back to its normal shape. The beginner must remember that in a positive the black marks show white.





Fig. 7.

His Only Pair.

The Chief
Lines of the
Features

slight upturned twist of the mouth will improve matters. If it is too smiling, then the reverse holds good and the mouth must be turned down. If we wish a face to be in repose, that is, to seem neither smiling nor looking cross, then the main lines should be kept straight, neither curled up nor down. Remember that the least alteration will usually suffice.

A look of astonishment may be almost entirely removed by softening the creases of the forehead. The continuity of the furrows should be broken up, but not completely eradicated. If they are taken away altogether then astonishment will give place to simplicity which is more undesirable still.

It is well to note that the lightest parts of the face, *i.e.*, those that are the darkest on the negative are (a) the line down the nose; (b), the central space above the upper lip; (c), sometimes a small portion of the chin; and (d), a tiny patch high up on the cheekbone. These parts must therefore be kept the darkest of the negative. Under no circumstances should other patches be worked up to appear equally dark.

The shadows should also be noted. They come under the eyes, the nose and the underlip. As a rule, they will need softening and graduating, but never entirely removing. If too much pencil work is done on them, an unnatural expression may result. Sometimes these shadows are not strong enough. Then it will be a wise plan to strengthen the lights all around and so relatively darken them in the positive.

The line running under the eye must never be obliterated. Without it the face would seem devoid of interest and flat. If there are other lines as well, due perhaps to age or suffering, they may be removed either partly or altogether. It will be unwise to work too near the lips, for by so doing a harsh and unnatural line is bound to come at the edge of the red colouring.

must not hope to put all these The Beginner hints into practice at once. should note them and reason them out with the assistance of a portrait negative. In actual work. he should confine his first attempts to softening the harsh lines and graduating the abrupt shadows which a faulty light may have occasioned. Later on, he may profitably attend to the modelling of the face, rounding the cheeks, smoothing the forehead and filling out the hollows. He must, however, be extremely careful that he does not add too much lead to the negative and so rob the face of its life and character. This is probably the most frequent mistake in the whole art of retouching.

He should select a negative of a middle-aged person. Extremes present unnecessary difficulties. A child's face will require very fine markings, only such as could be produced by a tutored hand, whilst it will be hard to work up an aged face without depriving it of, at least, some of its years. Fig. 11 shows the best size head to learn on. Larger or smaller ones lead to other troubles.

A mirror should be at hand to study the features. From it we may learn the position of certain muscles and the peculiarities of the skin—things which we never noticed until retouching became of interest.

A Baby's Face should be but lightly gone over. No trace of the stippling may on any account show. The light running down the nose should not be lengthened, as is often done with middle-aged people, or a careworn expression will result.

The Nose.

The high-light just mentioned, extending from the bridge downwards, may be projected a little nearer to the tip in the case of short-nosed people. Some of the lighting is thus sacrificed to secure better proportioned features.

Freckles.

Do not stipple over freckles, for this will not only remove them, but will take away part of the likeness as well.

#### INTRODUCTION TO RETOUCHING.

The correct plan is to dot out each freckle singly, holding the pencil at right angles to the negative. It means a great deal of work, but it is the only way.

The Knife. To retouch without a retouching knife is like sketching without a piece of india-rubber. Some writers would limit its use to the advanced worker, but every person who wields the pencil should possess a knife and use it. Figure 61 shows a useful type.



The end A is intended for scraping or peeling, while B is for picking out the whites of the eyes or any undesirable dots in the film. The knife is gripped in a wooden holder, just as the lead is.

The film, to be worked on, should be perfectly dry, but a little tacky medium rubbed on the day previous is sometimes an advantage. The knife should shave up the film just as a sharp chisel does wood. If it tears through the negative or only scratches, then it is probably blunt and will require careful sharpening. Do this first on an oilstone and then on a razor strop. Do it often, for, like the pencil, it cannot be kept too sharp.

The knife is useful for rounding off square faces, removing ugly creases in dresses, obliterating untidy hairs, and even reducing the dimensions of ladies' waists. In more advanced practice it is possible to take out a secondary impression of a slightly moved face and to add even elaborate detail where necessary. This latter is done in conjunction with the pencil, the knife furnishing the light parts and the lead the darker ones. It is well to note that if too much film is at any time removed, it may always be made up again by pencil markings. But prevention is better than cure, so do not attempt to shave off all that is desirable in once. Go lightly over the parts several times.

A suitable knife costs about a shilling. The practical photographer, however, will be able to make one out of a stout knitting needle for next to nothing. The home-made article, we must remember,

will require sharpening very frequently. The scalpel made from an ordinary penknife blade has usually too broad a business end.

All this work is naturally done at the desk.

must be spotted out with a No. 2 Pinholes red sable (cost about sixpence). In selecting a brush, care should be taken to choose one with a perfectly tapering point, one that is springy and elastic. The most useful paints are black and amber (moist water colours, not oils). The brush, only slightly moistened, should be rolled along the cake of paint or on the palette to ensure a good point. It should be held almost at right angles to the negative. the paint goes all round the hole and not in it then the colour is probably too liquid. Wipe it off and begin again with the paint much more tacky. If practice is badly wanted, make a number of pin pricks in a discarded negative and work them out. Pinholes in the thinner parts of the film should not be filled in, for they seldom show in the print. Hence the cure might be worse than the complaint.

Brush Work. Many negatives have the unhappy knack of printing unevenly. By the time the hair is fully apparent, the pattern of the lace collarette has only begun to be visible. Take a small sable and a soft blunt pencil and work up the details of the hair, the lace, or whatever parts are unsatisfactory. A great improvement may be effected in a few minutes. We must be careful, however, that we do not supply a sharp pattern everywhere. Parts may be sharp it is true, but others will be indistinct. These we must not overlook.

Landscape Retouching.

For some strange reason many workers limit retouching to portraits. Landscape pictures are often materially improved by means of a little pencilling. A dark shadow may easily be softened, a telegraph pole or lamp-post totally eradicated, detail added to architectural subjects and glaring portions toned down. The method of procedure is exactly the same as for portrait work. Rather more medium than usual will, however, be required.





Fig. 9.

Portrait taken with a soft focus lens, and scarcely touched with the retouching pencil.

C. H. H.

To Rub off all is a simple matter. A liberal supply of medium is worked on as described in an earlier paragraph, and the pencil marks very rapidly disappear.

To rub off some of the retouching is a difficult, if not an impossible, performance. Take a knitting needle, wrap a rag round it smeared with medium, and pick out the offending parts. Sometimes the right amount may be cleared away, but it is usually a matter of chance. Therefore do not depend on this as a remedy for careless work.

is a very necessary operation where Varnishing retouched negatives are concerned. By the time a dozen prints have been taken from a non-varnished negative, the lead will be found to have considerably diminished in quantity. Do all the retouching on the film itself, afterwards varnish, and if any of the markings disappear in the process (as will probably happen), finish off once more, this time on the fresh surface. How to apply the solution was the subject of a chapter in "After Treatment of the Negative" (Practical Photographer, No. 7, page 26). ence should be made to that number. One precaution only need be mentioned here. pour the varnish exactly on to the retouched parts. Run it on to the film slightly to one side and then tilt the plate as required. Neglecting this precaution may result in the markings being washed away.

Working on the Back of the Negative
Negative

is often helpful. Thin negatives should be flooded on the glass side with matt varnish. Where the film is already thick enough, it should be scraped away, and, where it is still too thin, powdered crayon worked in with a large paper stump. A pattern may readily be made with it if desired.

A few Don'ts. Do not pass over the same parts of the negative too often. After a while the pencil will slip, and the film will refuse to hold more lead.

Do not print from retouched negatives in bright sunshine or too near the gas flame. A coarse patchy print would result.

Do not forget to rub negatives intended for retouching with a pad of cotton wool on removing them from the washing tank. They may be gritty and hard to work on otherwise.

And in conclusion, do not forget that retouching must never show. (Vide Figs. 11-18).



# Retouching.

By C. H. HEWITT.



PRELIMINARY inquiry into the matters which produce the necessity for retouching negatives will enable many workers to dispense with its aid, and others to do much less on the negative than is usually considered necessary. In the first place, let us bear in mind that when we look

at the human face we do not gaze at it intently, with a view to discover the minute spots and freckles, the tiny moles and differences in colour, or the grain of the skin. We take in the face as a whole, with its setting of hair and dress, and the constant play of the facial muscles forming the varied expressions attracts our attention much more than the minutiæ of detail. Colour, too, which goes so far in the majority of faces to produce charm, is noticed by most people much more than form. In the photograph the play of the muscles is necessarily absent the face is frozen, as it were, and of course colour is absent. Even if the happiest expression is secured, we have only one expression, and there is not the constant (though generally unthought-of) expectation of a change, a fresh glance, or a rippling smile. Hence in the photograph, by the elimination of many of the things we expect and usually see in the face itself, what remains is emphasised and brought prominently to our notice.

Incorrect Colour Rendering. Again, as all know who have had much photographic experience, the ordinary plate fails to give a reasonably correct rendering of the rela-

tive colours in the face. Reds and yellows come much too dark, and tan and sunburn always present difficulties. The orthochromatic plate corrected for colour by means of a suitable light filter does much to give the various colours of the flesh their proper relative values, and so removes the need in retouching the negative of correcting tone values. But it must not be supposed that the portrait negative on a colour-corrected plate requires no retouching, or even much less work than one on an ordinary plate.

Sharp Definition given by the Lens. The two principal reasons why a considerable amount of retouching is necessary are in my opinion, (based on many years' experience in of portrait negatives), the sharp

the production of portrait negatives), the sharp definition given by the lenses usually employed, viz., the portrait, rectilinear, or aplanat and anastigmat lenses, and exposures erring on the side of undertiming. To the worker who desires to produce portraits with as little retouching as possible I would say, then, employ a lens giving a slightly softened definition, and take care to give always what has been called "a properly full exposure."

This question of exposure may "A Properly Full Exposure. "readily be tested by taking two negatives of the same sitter in the Assuming the "correct" exposure same position. to be one second, give to one plate about one-third of a second and to the other plate fully two seconds. Develop the plates separately, taking care to keep the shorter exposure rather thin. Then intensify this one, and when dry print both negatives. The resulting prints should for ever prevent the error of under-exposing a portrait negative, unless, of course, under such circumstances as render a full exposure quite impossible. With regard to the lens, probably the best lens the portraitist can employ is a single landscape lens working at an aperture of at least f/8. Such lenses may be had at

very reasonable prices, a 10×8 lens of 14 inches focus costing about 25s., and being an admirable lens for cabinet portraits. Fig. 9, a portrait made with a telephoto lens, has not been retouched at all in the ordinary sense of the word, but about one minute was spent in slightly softening one or two shadows.

Normal Lighting shows up Skin Roughness.

These two questions of sharp definition and short exposure to some extent are linked together. lighting required to give roundness and modelling to an ordinary head

is usually so strong that every little roughness or irregularity on the skin throws a shadow almost equal in strength to the shadow on that side of the head away from the light. In some parts of the face light may be reflected, say by the nose, which will soften these tiny shadows, but over much of the face they will be present. Each little hollow in the skin will appear like a crater, each little lump like a hillock, if the negative be examined with a magnifier. The slight diffusion recommended spreads the light from the lighted portions over these tiny shadows, and so equalizes matters, though at the same time the general force of the larger masses of shadow is retained.

So far the question of the wrinkles Wrinkles. in a face has not been mentioned. All people in and past middle age have to a greater or less extent lines caused by care, worry, or thought, and most of them like these evidences of advancing years to be as little apparent as possible in The reasons given in the first their portraits. paragraph with regard to grain of skin and colour differences operate also with regard to wrinkles When a face is continually moved in relation to the source of light we do not notice the wrinkles so much, because one moment they are there, and the next either modified by a change of expression or rendered less noticeable by a different illumination. Suitable lighting should always minimize the wrinkles which are least conducive to beauty, and it should be borne in mind that if the character of the face is to be retained the wrinkles must not be obliterated, but merely softened.











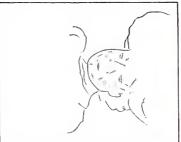
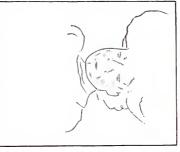


Fig. 16.



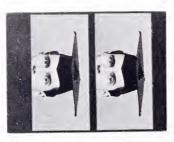




Fig. 18.

Fig. 14.

Print from untouched negative.

Print from same negative after retouching.

Shows retouching required to convert A to B.

Marking due to improper application of medium.

Excessive creasing of the forehead.
The same after retouching.
Eyes showing false lights
The same reduced with the knife. Stanley C. Johnson.

So far, it may be remarked, we What have been learning, not how to Retouching is. retouch, but how to avoid retouching. And as retouching merely exists to remove or modify certain defects, it is manifestly better to see that there are as few defects as possible to remove. Retouching should never be done for its own sake. Retouching may be defined as a correction of defects by pencilling or scraping the film, or by pencilling on the back or glass side of the negative. Carried further, it may remove or partially remove unpleasant facts which are not really photographic defects, such as freckles or spots temporarily on the face, or warts, moles or other excrescences permanently there. Pronounced furrows may be softened, the shape of features modified, noses straightened, mouths reduced, hair added or removed, moved portions may be sharpened and faulty fitting clothing put right. Carried to excess, either by the demand of foolish sitters or by the ignorance of uneducated retouchers, it may destroy all character and even in some cases every vestige of likeness.

Materials required for Work.

The materials and tools have been dealt with in another chapter, but I should like to supplement and modify this advice as suggested by

my own experience. I find a large desk most convenient. The slope on which the negative is placed should be about 18 or 20 inches square. The worker is not then so cramped and has more space on which to rest the forearm. I prefer the desk on a firm table or bench of good size, and so arranged that the elbow rests on this firm bench. The position of the negative should then be such that the hand easily reaches it. The arm is not then fatigued, and all the motion is from the wrist and more still from the fingers. I prefer the slope of the desk to be a sheet of clear glass, covered with a piece of thin card or stout brown paper attached to the framework with drawing pins. In this card or paper the four-inch hole may be cut at the proper place. movable rebated slip can be laid across on pegs, so

that the negative may be raised or lowered as required. Occasionally such work is required, generally on the back of either portrait or landscape negatives, as necessitates the whole of the negative being seen, and it is then that the advantage of the sheet of glass and the easily movable thin card is apparent. A sheet of clean white blotting paper is by far the best reflector, and any negative which is too dense to allow sufficient light from such a reflector to be transmitted through it should be reduced.

There are several good makes, but Medium. they need using differently. One make appears to consist principally of Canada Balsam dissolved in benzole. This should be applied with a piece of well-washed linen rag, say an old handkerchief, and when nearly dry rubbed This friction gives the smartly with the rag. necessary tooth. The negative after the medium has been applied should not feel "tacky." Another make resembles resin dissolved in pure turpentine. This is best applied with the finger tip, using no rag, but smearing the medium as thinly as possible over the negative. Many workers prefer to employ finely powdered pumice or powdered cuttle-fish bone, abrading the film slightly by applying this with the finger tip. This is somewhat apt to produce an unevenly abraded surface, and unless care be exercised the film may work greasy in places. Some photographers employ a negative varnish which gives a toothed surface, but as a rule it is better to get the bulk of the work on the film and protect from friction by the varnishing of the negative.

Pencils.

For more advanced work several pencils are an advantage. The harder pencils are of use for very thin negatives and for small heads; a finely-pointed pencil is of little use on a three or four-inch head. In such cases an H or even HB may be used, keeping it rather sharper than as ordinarily carried in the pocket. Some workers employ a broadened or wedge-shaped point in working large heads. For ordinary cabinet heads of about an inch and a-half an HH is amply hard enough. A BB or even BBB

is very useful for working on the matt varnish or mineral paper on the back of the negative when this supplementary work is required.

Knife. The knife is a very important tool. No retoucher's knife or scraper I have seen is at all satisfactory. The best instrument I have used is a surgeon's vaccination lancet. It possesses a suitably curved edge and a nicely-rounded point, so that large or small areas may be scraped at will. In using it it must be held at right angles to the film. A fine hone or oilstone must be kept on which to sharpen it, and a razor-strop for finishing off is an advantage. If not an adept at sharpening such instruments, a barber would probably sharpen it in the same way that he sets a razor.

Matt Varnish

expensive.

The broader effects of retouching

may generally be best done on the or Mineral back of the negative. To hold this Paper. work it is necessary to coat the glass side with matt or ground-glass varnish, or to affix a sheet of papier minéral. Matt varnish is best if many little patches have to be scraped off again where there are dense portions of the negative. Care should be taken not to let the varnish get too thick. As little as possible should be poured over the cold negative, and it must be flowed over to the corners rapidly, or uneven markings will occur. Mineral paper should be cut to size, damped, and the edges of the negative coated with gum or seccotine, the paper being then laid on and smoothed down. When dry it will be tight and ready for pencil or brush or stump work. Beware of using mineral paper or matt varnish with very thin negatives; a slight mottled effect is almost sure to manifest itself. Where a negative is denser and takes longer to print this is not

Methods of Work.

Having all our materials at hand and the negative ready, let us apply the medium as described and then, plate on the desk, commence work.

apparent. For such thin negatives a sheet of finely-ground celluloid is preferable and it is not

Remembering the rule laid down, that retouching should never be done for its own sake, we must determine what we are going to take out and what we are going to put in. If the portrait has been taken on a good plate, thickly coated and possessing plenty of latitude, and if the lighting, exposure and development have all been satisfactory, we shall find the high-lights sufficiently indicated and the shadows not too heavy. Such a normal negative should be used for the first attempts. Later on defective lighting and modelling may be remedied.

The "Touch." Personally I do not believe in teaching any particular "touch," but think it better to let each worker develop his own. The old-fashioned method of making dots is not very satisfactory. Such retouchers used to be known as "negative punchers," and the term was not used in a complimentary sense. The employment of multitudinous little "commas" tends to an ivory texture that is not satisfactory. In my own work I always use a number of almost straight short strokes running in all directions. Fig. 21 shows on a large scale what I mean. Each stroke is made independently of any rule, but simply to fill in a light patch. In many cases, and usually where a good deal of work is required, this is varied by not taking the pencil off the negative at all, the magnified example in Fig. 22 appearing just like scribbling. Let me hasten to say that this touching in all directions and also the "scribbling" is not done vaguely, but each place the pencil touches is definitely in need of blacklead for the production of the desired effect. The beginner will work slowly, making each stroke or "scribble" independently; the expert works more rapidly, and almost unconsciously avoids putting lead where it is not wanted.

Correct
Pressure.

While in general it may be stated that a light touch is required, this is only so at commencing. It may be better to put on too little lead than too much; but, on the other hand, it is not possible to go over the negative again and again, for it will be found that before long the film has become so shiny that no more lead can be applied, the film having lost



Fig. 19.

The Story Teller.

H. S. Prince.

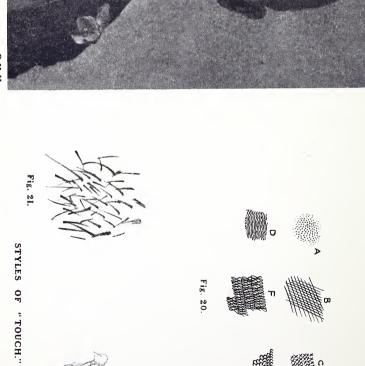


removed.

Lines under eyes obliterated. Mouth too small. Character

Negative much overtouched. Shadows softened too much.

Fig. 22.



S.C.J.

all its tooth. Consequently it is well to determine how much lead is required, and to apply it almost at once. This amount of skill can only come by practice, and, of course, even then it is often necessary to work twice over the same place. But the pressure applied to the pencil varies very considerably, and on the same negative it is frequently an advantage to use an H pencil for some parts and an HH for others, using the softer pencil, of course, where most lead is required.

In the first few essays it will be Early wiser to begin by carefully remov-Attempts. ing the small blemishes and roughnesses of the skin, bearing in mind always that every touch of the pencil removes the photographic skin texture to some extent. If the surface is made to appear too smooth we shall have, instead of a representation of flesh, something more like ivory or polished marble in appearance. To work out freckles the point of the pencil should be placed in the freckle and the stroke made in any direction, as illustrated in Fig. 21. If the head is of fair size (and such heads afford by far the most useful practice), it will be found that several of these short strokes will be needed to obliterate each freckle. After the roughnesses have been worked out over the whole of the face we may pass on to consider what is next to be done. Keep the head well back from the negative, at a distance, say, of 12 inches if the sight is normal, and, instead of looking at some particular part of the face, take a comprehensive glance at the whole. It will no Position of doubt be found that the face is Worker. patchy. Although the tiny irregularities have been obliterated, there is a "dirty" appearance. By means of somewhat longer and lighter strokes this patchiness must be removed. It is most important not to get too close, or it will be found impossible to get rid of patchiness. While this is being done attention may be given to the removal or softening of wrinkles or furrows. Some of the lines must be almost obliterated, whilst others require merely a few touches. In softening furrows care must be exercised to carry the pencilling deli-

cately from shadow to high-light, so that there is no place where the pencilling may be said to stop.

The negative should now be practi-Modelling. cally finished, but it will perhaps be found that just a touch of "sparkle" is required. The high-lights need reinforcing slightly. will be indicated in the negative, as we assume it to be a good one, and the positions they occupy should be carefully noted, so that when a really flat negative comes to be handled they may be put in correctly. Of course, the contour of each face varies, but thought, combined with previous observation and experience, will enable any average face to be correctly modelled. Do not make these tipped high-lights too strong or too large. The lights that usually require strengthening are those on the forehead, the bridge and tip of the nose, the There are many cheek-bone, the lip and the chin. other little sparkling lights in a well-illuminated head, but they should not require reinforcing, and care should always be taken in working not to lose these delicate lights. It is one of the worst faults of most cheap photographic portraits that all the delicacy of modelling is removed by thoughtless and ignorant stipplers. The price paid for such work is so low that the professional cannot afford a high salary for his retoucher, and much knowledge of art and anatomy cannot be expected for a few shillings a week.

In Figs. 26 and 27 we have a negative unretouched and retouched in part. The work has been done somewhat coarsely, so that it may show fairly well after reproduction by the half-tone process; but in all the illustrations it must be remembered that the grain of the screen tends to minimize the roughness of the original unretouched portrait by breaking up the tones. The principle is the same as that of the Strauss stipple plate, a dotted screen made through which a portrait was taken. If Fig. 27 is held close the strokes of the retouching may be seen, while if it is held away only the general effect of the work should be apparent.

More Advanced After sufficient experience and dexterity have been acquired to enable Work. the work above described to be properly executed, the student will want to proceed with problems of greater difficulty. A great deal may be done to improve a negative as a portrait and from a pictorial point of view by broad, general work before any retouching proper is begun. Hands, portions of drapery, or accessories which are too light in the trial print may be rubbed down either with a piece of linen rag or a bit of washleather moistened with alcohol and applied to the too dense portion with considerable but judicious vigour. This should be done on a perfectly dry film and before the retouching medium is applied. Some workers may find a very carefully filtered mixture of Globe polish, terebine and salad oil easier to manage than the alcohol. The filtering must be done through the finest muslin, lawn or silk, or particles of Globe polish large enough to scratch the film will not be excluded.

After the larger masses have been Scraping with reduced in density by one of these the Lancet. methods of frictional reduction, the negative should be carefully examined for any small patches which may distract the eye. Bone buttons and sequins are great offenders in this respect, and frequently need nearly obliterating. Stray hairs at the back of the neck, which catch a strong illumination, are often seen as dark patches, and sometimes a stiff whisker projects curiously against a dark background and needs removing. The contour of the figure may frequently be slightly altered so as to form a better or more flowing line; a waist may be thought better if slightly reduced in dimensions, and so on. Where an outline is to be altered it is well to draw in the line with a hard pencil just where it is wanted, and then the scraping may be done up to the line. In the case of buttons and so on the object should not be scraped away entirely, but only until its undue conspicuousness is removed. In Fig. 29 we have an example of scraping, not given as an instance of a case where scraping was necessary, but simply to show the

effect. The original outline of the sleeve will be seen, and at the part nearest the hand it will be noticed that the scraping has not been finished. Between that and the line across the print the scraping has been carried sufficiently far, and in places the scraped parts print too dark. Above the line these parts have been carefully pencilled (after the application of retouching medium to the negative) to bring them to the same density as the rest of the background. The whole of the scraped portion would, of course, be worked up in the same way. It often happens that after varnishing a negative these scraped portions show greater transparency, and consequently need a little more pencil work before any prints are made.

Correcting Defects in the Features.

As experience is gained in scraping such parts as I have mentioned, it will be found that the same methods may be applied to the face itself.

Greater care must be exercised here, or the likeness and expression will be injured or lost. An unduly high cheek-bone may be slightly scraped away, so improving the contour of the face, in three-quarter face portraits. With very stout sitters the rolls of fat over the collar of the dress or stiff linen collar often need scraping away, though it may be well to mention in passing that if such sitters are photographed leaning slightly forward, or, in the case of head-and-shoulder portraits, standing instead of sitting, the fat falls away from the jaw and does not cause so much trouble. A tight collar always emphasizes this difficulty, and one is often surprised to see how tight such sitters have their neck wear. In the case of cross-eyes it is usual to adopt a side or at least a three-quarter face position, but sometimes something more towards full-face is wanted, and then the eve must be set straight in the negative. In all these cases the desired position should be carefully pencilled on the film and the scraping, especially in the case of the eye, must be done very delicately. A mouth opened rather too far may be closed by slightly scraping the lower lip and pencilling across the open mouth the shape of the lip. It often happens that the shape may be

5 to 10 to 1



Parish Software Present



drawn and modelled from another negative taken at the same time. Properly speaking, the chin will be too long by the amount added to the lip, but in practice this is rarely noticeable, as it usually happens that the lip itself has dropped rather more than the chin. Such cases occur with young boys and children who indulge in "fly catching" and usually in groups when the operator's attention has been occupied elsewhere at the moment of exposure.

Remedying Defects in the Negative. It often occurs that negatives contain slight technical defects, such as frilling, a hole dug in the film by a careless finger nail, uneven

development and so on. It is comparatively easy to remove these blemishes by the use of the scraper and the pencil combined. The most difficult of uneven workings are those where the demarcation is distinct and sharp. A blurred outline is easier to pencil than a sharp one, and a better job may sometimes be made by gently scraping the sharp outline until it becomes a blurred one, and then, after the application of medium, pencilling it until the workings are obliterated.

reasonably Hitherto  $\mathbf{a}$ Correcting negative has been assumed, i.e. well-Defects of lighted and of suitable density and Lighting: of good round modelling. Flat Negatives. professional practice, however, it sometimes happens that commercial exigencies demand the production of negatives under difficult conditions, and the negatives may be harsh from under-exposure owing to poor light, and occasionally flat from over exposure owing to incorrect judgment. These negatives, though far from ideal, have to be made the most of. It is presumed that the best will be done by reduction with persulphate of ammonium or by intensification first of all. The retouching will then be proceeded with. In the case of flat negatives it is often the better course to notice carefully the modelling, of which traces almost always exist, and to increase or intensify this by pencil work cautiously. The freckles and other blemishes may be removed at the same time. If, on the other

hand, the face is smoothed up first there is a danger of the indications of the modelling becoming lost or obliterated. Such negatives as these always require a great deal more work than a normal negative, and it is easy to so alter the modelling that the likeness is lost. Hence a knowledge of the anatomy of a face is desirable and this should be strengthened by constant observance and thought in retouching all negatives. It cannot be too strongly insisted that the modelling conveys the form of the object far more than the outline of the face and the position of the principal features.

In the case of flat negatives we Harsh Negatives. have too much detail and too little modelling-with harsh negatives the reverse is the case, and to supply some of the deficient detail and gradation is the aim. It will be understood that if the under-exposure is so serious that the shadow side of the head is quite devoid of detail nothing at all can be done. If the detail is present, but thin, it may be delicately pencilled over with a rather hard pencil. The less the density of the high-lights is increased the better, and spots or freckles which may show should be touched out with as little lead as may be. The greatest difficulty will probably be found in softening furrows or wrinkles which, owing to the short exposure, will be very pronounced. With both flat and harsh negatives great gain will result from the use of matt varnish or mineral paper. On the flat negative the modelling will be built up on the back with a soft pencil, and this work may be judiciously extended to the background as well, so that the head may be properly relieved. It must be remembered that work on the back affects the masses rather than the details. Thus a heavy shadow containing some detail may be generally lightened as a whole; but if certain parts of the detail require strengthening this must be done on the film. The matt varnish may be scraped away entirely from the dense parts so that they may be induced to print a little lighter. It will sometimes be found that the whole of the face prints toodarkly. This is particularly so where white draperies are present, and the matt varnish may be pencilled over the whole of the face so as to lighten it slightly on the print.

In commercial work it frequently Retouching of occurs that the dress requires some Draperies. retouching. A badly-fitting dress or coat may be altered by slightly scraping away the high-lights on the creases and pencilling in the shadows, evening up the surface carefully. scraping and pencilling to reduce a waist has already been alluded to. Where negatives have been over exposed the tipped high-lights on white or lightcoloured dresses may be difficient in brilliancy and need strengthening with the pencil. From a business standpoint and with the majority of what one may call ordinary customers it is worth while spending a little time in giving brilliancy and sharp sparkling detail to white draperies, lace and so on. Regarding the portrait from an artistic standpoint, of course, such work is very undesirable and often vulgar, but people are often prepared to pay for it and will appreciate a picture so touched up, to the extent of buying double the quantity, a factor the commercial worker cannot afford to overlook. Even in betterclass work a little emphasis on some of the highlights near the pictorial focus of the picture will often aid the effect, but it should be very delicately done, preferably on the matt varnish on the back of the negative.

Landscape
Negatives.

Much of what has been said with reference to portrait negatives is applicable to landscapes also. Speaking generally, landscape negatives are best treated by pictorial local reduction, and the correction of tone values or distances on the matt varnish at the back. Defects and small undesirable objects such as chimneys, telegraph posts and so on may be pencilled out on the film. The scraping lance will be useful to remove a figure which has moved, or some clothes put to dry on a hedge and so on.



# Supplementary Hints on Retouching.

By A. LOCKETT.

BVIOUSLY, the ease with which retouching can be accomplished depends greatly on the colour, texture, and surface of the negative. Therefore, when it is known beforehand that retouching will be required, it is worth while to aim at obtaining that kind of negative which

will facilitate instead of embarrass the work. This is not always possible, since the necessity for retouching often arises from unforeseen defects in the negative; but, often it is within the worker's

power to do much in this direction.

The best colour for a negative Colour. which is to be retouched is clearly an exact match of the blacklead pencil. This is readily obtained by using a pyro-soda developer containing a liberal proportion of sulphite—fortunately an ideal developer, also, from a pictorial and technical point of view. It is very difficult to estimate how retouching will print on a negative of a brown or reddish tint. It is practically useless, for instance, to work with a pencil on one intensified to a red colour with uranium. A yellow, pyro-stained negative is also very awkward to match. A good idea may be gained of the kind of negative required by rubbing some blacklead powder over a piece of ground glass, and holding up to the light.

Texture. Under this heading also must be considered density and grain. A negative of moderate density is to be preferred; a thin one will not only require greater nicety of touch, but probably far more work. A very dense one is unsatisfactory in every respect, and, if it cannot be reduced, must be worked with softer pencils. A certain amount of grain is, curiously



Fig. 25. A Toiler of the Beep.

J. Smith.



Fig. 26.



Fig. 27. C. H. H. THE SAME NEGATIVE AFTER RETOUCHING.

### SUPPLEMENTARY HINTS ON RETOUCHING.

enough, a distinct help. It renders stippling or cross-hatching easier, and lends itself occasionally to the successful application of blacklead powder on the finger tip. This, however, must be done with great caution, since a little blacklead goes an unexpectedly long way as regards printing opacity. However desirable a slight grain may be in a negative intended for retouching, muddiness or patchiness is quite a different thing, and should be shunned.

Surface. A negative whose surface is unduly hard and glossy is tiresome to work on, especially if much pencilling is required. It is therefore inadvisable to harden the film by means of alum or formalin if it is known that retouching will be needed.

Necessity of Perfect Dryness. Unless the gelatine surface is absolutely dry, the pencil will tend to dig in, and the work will be scratchy. It is always a good plan, before retouching, to warm the negative for a few seconds in front of the fire or over a spirit lamp. This will drive away any moisture absorbed from the atmosphere. The negative must, however, be allowed to cool before applying the medium. Avoid the use of glycerine in drying.

The pencil and colours will not Greasiness, take if the negative is greasy. Grit, and Dust. When this is seen to be the case, immerse the negative in a 2 per cent. solution of ammonia for a minute, rubbing gently with a soft piece of cotton wool, wash for a quarter of an hour, and dry. Grit and dust are highly objectionable. The careful worker will hardly need to be told this. To escape the infliction, wipe carefully with cotton wool before standing up, and place to dry in a situation free from dust. A muslin-covered receptacle like a meat-cooler, or one of the perforated zinc drying boxes obtainable for the purpose, is a great convenience. If grit and dust are seen to be present in a dry negative, they may possibly be removed by washing again until the film is perfectly soft, and treating with cotton wool as before described.

Surface as Affected by Medium. Seeing that the medium is applied for the express purpose of giving a surface which will take the pencil, care should be taken that it is well

adapted to that end. In the first place, it should be chosen with some regard to the heaviness or lightness of touch of the worker, who should be able to get on as much work as required, without either unnecessary labour or too great a facility, which would mean coarseness and roughness of effect. This leads to the second point, viz., that the medium must also be suited to the character of the work in hand. It is quite clear that a thicker and "tackier" medium would be required for a large negative with masses of shadow to fill up broadly, than would be suitable for ordinary work. It is a good plan to keep an assortment of medium bottles, of different composition, thickness, or age, and to familiarise oneself with their varying properties and peculiarities. It is impossible to lay down any rules in this respect, because, as already stated, the effect obtainable with any given medium depends largely on the worker's individual "touch".

Surface as Affected by Varnish. It is the practice of some workers not to retouch a negative till it is varnished. This procedure is not to be recommended, since not only

does the work lose the protection otherwise afforded by varnishing over the retouching, but the surface does not take the pencil so readily and often tends to give a scratchy result. Various retouching varnishes giving a rough surface, and requiring no medium, are obtainable, and their use is largely a matter of taste. If retouching is done over a varnish of any kind, it must be absolutely cold and hard before any work is attempted. Where a good deal of pencilling is required, the film may be worked on first, then varnished and allowed to harden thoroughly. The varnished surface may then be roughened by the following mixture, finely powdered and ground together, and sifted:-Cuttle fish bone 1 oz., resin ½ oz. For all ordinary purposes it is better to work on the film, and to use a varnish which will not remove any of the work. Many workers of experience, however, consider varnish-

## SUPPLEMENTARY HINTS ON RETOUCHING.

ing quite unnecessary, and maintain that a varnished negative is really more liable to scratches and abrasions than the unprotected film.

Removing Dichroic or Colour Fog, which will often show itself objectionably in the print, although not very conspicuous on the negative, may, if on the surface only, often be removed by rubbing with a silk rag moistened with retouching medium. The rubbing should be done gently but firmly, and continued patiently with a circular motion until the desired object is attained. Dichroic fog is recognisable by a pinky appearance when looking through the negative, but is green by reflected light. It seldom occurs except in plates forced during development with pyro-ammonia.

A much under-exposed negative is Character of rarely worth retouching, unless it Negative. possesses some exceptional interest or value. The best that can be done is to work on the film as far as possible, and then, stretching papier minéral or tracing paper over the back, fill up the heavy shadows with a small stump and blacklead powder. A soft pencil may be used for indicating detail. Frequent rough-proofing necessary to test the progress of the work. Before retouching, a negative should be carefully examined to see if any improvement is possible in the direction of reduction or intensification, either general or local. Ammonium persulphate, for softening harsh contrasts, is a valuable agent and saves much unnecessary work. A correctly exposed negative, soft and delicate in gradation, yet not lacking in vigour, requires the least retouching and is the easiest to work.

Lighting. The manner in which the subject is lit is of much importance as regards the amount of retouching required. A round, full lighting is the best from that point of view. Harshness and heavy shadows evidently imply more labour to the retoucher. Mixed lightings and false reflections are often a source of considerable trouble.

Advantage of Orthochromatic plates, especially in portraiture, greatly reduces the amount of work necessary. This is a valuable aid hardly yet appreciated by the professional photographer. Not only are freckles and spots less

grapher. Not only are freckles and spots less obtrusively rendered, and sometimes entirely ignored, but shadows are softened and the whole texture of the face more pleasingly portrayed.

Retouching obstinate parts. Where any part of the negative resists the pencil, the point of the latter may be rubbed on the cork of the medium bottle, so as to take up a small quantity. This is generally sufficient to make the work adhere. Small spots which will not take the pencil may be successfully managed by just moistening the point with the lip, or preferably by a small piece of wet blotting paper.

Use of Pumice Powder. It is not generally known that a negative may be given a matt surface, without injury to the film, by rubbing all over with pumice powder, in a circular direction, until the desired effect is secured, using the palm of the hand for the purpose. Any amount of pencil can then be got on the film. This method is well adapted for the improvement of negatives containing harsh contrasts and for land-scape work. Of course, only the finest pumice powder should be used. This plan is better suited for fairly large negatives, with broad effects, than for those containing delicate detail.

Stripping Film on to Celluloid. It is sometimes an advantage, with negatives showing great contrast and little shadow detail, to strip the film from the glass and transfer it to a celluloid support, so that both back and front may be worked on as closely together as possible. A good formula for the purpose is as follows:—

No. 1.		
Methylated Spirit	2	oz.
Water	2	oz.
Formalin	11/3	oz.
No. 2.		
No. 1 Solution	- 1	oz.
Hydrofluoric Acid		

Cut through the film all round with a sharp pen-



Fig. 28.

Portraít Study,

R. Berry.

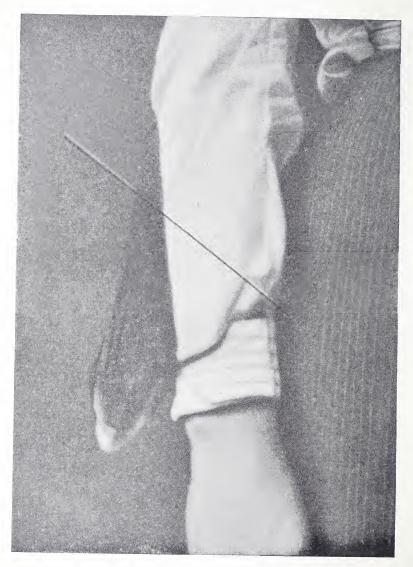


Fig. 29.

Showing use of scraping knife. A portion of sleeve has been removed, merely to provide an illustration. Towards lower part the scraping is not quite complete. Above the line the scraped part has been worked in with pencil. This should have been carried rather further, as it still prints darker than background.

knife about \( \frac{1}{3} \) inch from the edge, then place in a dish and pour over No. 2. Remove the narrow margins of gelatine and gently loosen the film. When it is loose pour on No. 1, lay a piece of clean white paper over the negative, and rub down with a squeegee, without too much pressure. Remove the paper containing the film to the celluloid, first dusting it, again squeegee, and after about half a minute carefully detach the paper. Do not hang up the celluloid, but allow it to dry flat on a level surface, pinning the corners to prevent curling.

Although some workers prefer the Working at use of what is known as a "diffuser" Night. when artificial light is employed, the majority of retouchers recommend simply a sheet of ground glass, opal, or a double thickness of white tissue paper, in conjunction with a good duplex paraffin lamp. Neither electric light nor gas appears so suitable for the purpose; the colour of their rays is more difficult to work by, and the illumination cannot be so well regulated or diffused. Before a little practice has been had, it will be found that working at night is very deceptive, and that a negative done under these circumstances may appear quite different by daylight, but experience will soon enable allowance to be made for this.

Stippling with Colour.

Stippling the back of the negative with colour is a great aid in preventing thin parts from printing too dark. The colour should be chosen to suit the negative; for thin ones, Prussian blue is perhaps the best, for greater density crimson lake or Indian ink may be used. Moist water colour should be employed, mixed on a palette and dabbed on the negative with the tip of the forefinger. It is suffered to get nearly dry, and is then gently breathed on, and stippled softly and evenly with another finger.

Retouching may be done without a desk, and this is a favourite plan without a Desk. The negative is rested against a window, either supported by the hand or upheld by the ledge. The work is then done in the ordinary manner. This method seems to have the advantage that the work is likely to

be executed broadly and largely, and unnecessary strokes avoided. A few retouchers maintain that the plan is better for the eyes than the concentrated small patch of light given by a retouching desk, but this would seem to be doubtful.

It is unquestionable that those who Retouching and have to do much retouching, the sight. frequently complain of injury to Although to some extent depending the evesight. on the individual, this is certainly avoidable if a few simple precautions are taken. The light should never be brighter than necessary for comfortable working, and, as a rule, it will be better to block out those portions of the negative which are not being worked. Extraneous light from the back and sides should be avoided, and the retoucher should, every now and then, raise his eyes from the negative and take a glance round the room. will not only rest the eyes, but will prevent the work being done in a petty and niggardly fashion. Above all, the worker should keep himself upright, and work at as great a distance from the negative as possible.

Ventilation. One of the principal reasons for the injurious effect of much retouching on some workers is lack of attention to the subject of ventilation. Unless the room is large and airy, the top of the desk should be double, and provided with a number of light-trapped holes for the admission of air. The material employed to screen the sides should not be of a heavy and close nature. In addition, a point which is often overlooked, a room used for retouching should have at least double the amount of ventilation considered sufficient in ordinary circumstances.

Blocking-out
Figures.

To block out an unsuitable background round a figure, machinery, etc., the best plan is as follows:—
Rub down a thick paste of Indian ink with water on a china palette, and, with a fine sable brush, paint carefully round the outlines of the figure or machinery, forming a black margin all round about ½-inch wide. This must, of course, be done on the film side of the negative. Then place a piece of tissue paper on the back of the negative, and mark

### RETOUCHING LANDSCAPE NEGATIVES.

on this with a pencil the remaining portion which is to be blocked out, running about ½-in. over the Indian ink margin. Now paste the marked tissue paper over a piece of thick brown paper, free from holes, and with a sharp penknife cut round the pencilled outline. The brown paper is then pasted on the back of the negative, which is thus effectively and neatly blocked.

This is a rather difficult matter for Putting in the inexperienced, but is readily Backgrounds. done with a little practice. First of all, it must be determined what is required, and a rough sketch made. The outlines of the background are then drawn with a soft pencil, the negative having previously been well prepared The rest resolves itself into a with medium. matter of very careful pencil and knife work, using the pencil for the lights of the background and the knife for the shadows. The work must be done broadly with rather soft pencils, and care taken to avoid a scratchy effect. The chief difficulty will be the uncertainty as to how the work is going to print, but by taking a rough proof at intervals and exercising considerable patience this will be successfully overcome.

# Retouching Landscape Negatives.

By N. GREEN.

HETHER the reader intends to devote serious attention to portraiture or not he will find the discipline of learning to retouch a few portrait negatives of wholesome service in dealing with landscape and figure work, because in a portrait a dot or line more or less

may make an appreciable difference in the eye or mouth, etc., but in dealing with rocks, trees, etc., a somewhat greater licence may be permitted. Thus the portraitist passing to landscape work enjoys his freedom, but journeying the other way he would be continually feeling the curb.

As regards the use of the pencil, stump and knife, the procedure in both classes of work is similar, but in landscape the brush (charged with colour but kept nearly dry) is of much more general application for both sides of the negative. In landscape one may offer a bit of general advice, viz., use the softest pencil or largest brush that will do the work. This tends to give the work breadth and unity of style, and helps one to guard against spottiness.

Trees. He must be ever learning characteristic forms, and know at a glance the essential difference between the forms of leaves, the angles at which branches join each other, and the main stem, the difference between the young and old tree, the character of the bark, and so on.

Rocks. The forms of rocks, and the way different kinds crumble away under the influence of weather, the characteristic colours, and outlines of the limestone or sandstone must be familiar.

Animals. He should also have a general knowledge of the characteristic attitudes and movements of domestic animals—dog, cat, horse, etc. The sharpening of an ear, or eye blurred by movement may convert what might be taken for a "stuffed dummy" into a life-like object.

Cloud Forms will engage his extra careful study and equally careful and delicate handling, and the retoucher is advised to let knowledge always, and here especially, precede practice. The defects of photographic procedure may be regrettable, but the atrocities produced as "home made" clouds by ignorant hands are simply excruciating.

Water in various forms will also require close attention, noting the difference between the reflections in calm and moving water, the difference between clear and muddy water, shallow and deep water, the difference produced by bright or cloudy weather, the form and tone value of reflections (often wrongly called shadows) receiving special study.

Shadows cast by opaque objects, buildings, trees, must also be closely studied.

We must not only notice their shapes, but also their



Fig. 30.



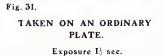




Fig. 32. TAKEN ON AN ORTHOCHROMATIC PLATE WITH LIGHT FILTER.

C.H.H.

Exposure 45 seconds.

No saving of retouching and the long exposure produces strained expression.

intensities, observing that the shapes alter as the sun is higher or lower, and the edge is sharp or soft as the sun is unclouded or clouded. Shadows exist when no sun is visible, *i.e.*, on a grey cloudy day. In this case they seem to begin and end nowhere, yet are here, there and everywhere, and demand very careful retouching.

Distance, etc. The effect of distance, fog, mist, time of day, and year on shadows, must all come within the retoucher's course of study, or he will assuredly do more harm than good

by his work.

Wind and Rain will often blur or partly blot out fine twigs against the sky. In some cases we may advantageously remove these twigs by levelling up to the sky density. At others we must sharpen up and retain them. At other times a slight blur will help on the suggestion of movement.

pictures require very careful handling by the retoucher, who may easily do more harm than good. It is of supreme importance to preserve the characteristic transparency of the shadows in freshly-fallen snow in the foreground. Our attention will here generally be confined either to very slightly re-inforcing the highest lights where the exposure has been full, or reducing them when it has been too short. The same general treatment applies in the case of white draperies.

One of the commonest defects in landscape work is spottiness, and patchiness due to lack of breadth. This is especially the case with sunlit foliage where the bright and shiny leaves yield spots of strong light. Let the beginner take a bromide print, and go over these lights with soft pencil, leaving say one in ten only, and let those left be grouped together, and he will in this way learn something of the pictorial value of breadth and harmony of

general effect.

[The landscape retoucher will find much to help and guide him in our recent number devoted to Landscape Photography (The Practical Photographer, No. 11), especial attention may profitably be given to those pages dealing with the sky, clouds, etc., and also questions of colour rendering. We hope to devote many more pages to the subject of retouching and preparing the Landscape negative for the printing frame in a subsequent number.

Ed. P. P.1.

# Miscellaneous Hints on Retouching for Beginners.

By W. FOSTER BRIGHAM.

T is important that the beginner be quite used to the reversed effect (position, light and shade) of a negative before he begins retouching. This may be easily acquired by carefully comparing a few negatives with their corresponding prints.

The help afforded by a good medium is very great, although the beginner may fancy he is making little or no progress. In his anxiety to see more rapid effect of his pencil let him guard against the temptation to use more pressure. A light touch must be cultivated from the commencement.

A heavy hand once acquired is very difficult to

get rid of.

If the worker wishes to preserve an upright figure he must have a straight-backed chair of the right height and keep his back firmly against the chair. Sit well back. This keeps the work harmonious. If the worker is too far away the work may be smudgy. To get too near the work is trying and also bad for the eyesight.

For practice take an old negative, mark a small square, and then work up with the pencil to an even flat tint. Next practise filling up transparent spots, and do not leave this lesson until the spot can be brought to the same density as the surrounding parts without going over the edge.

Blending lights and shades with half-tone is one of the retoucher's most important duties, so that the lights and shades melt into each other without a sharply defined line. Use as little lead as

possible.

The knife is only required by a small proportion of negatives, but the beginner must acquire the art of using it. It should be held lightly. Very, very light shavings are to be attempted. Never under

# MISCELLANEOUS HINTS ON RETOUCHING FOR BEGINNERS.

any circumstances should the knife go through the film at one cut. Practice is essential for successful use.

Masks. A set of black paper masks with openings varying from about the size of a half-penny upwards are very useful for covering all except the

part of the negative under consideration.

Media are likely to thicken by slow evaporation. Turpentine may be used to dilute them in such case. The beginner's usual tendency is to use too much medium. Excess may be removed by rubbing with a rag just moistened with turpentine.

**Powder media** are not to be recommended; not only do they admit of less lead being put on with the pencil, but also they render the negative unfit

for enlarging purposes.

Reflectors. White paper is the best reflector. Mirrors are seldom required. Retouch the strong dense negatives in the middle of the day, reserving the thin ones for the hours when the light is not so strong.

Artificial light. Working by artificial light is somewhat troublesome at first, but a little practice smooths the way. An oil lamp with opal or ground glass globe comes near the ideal. Electric light and incandescent gas are too intense.

A thin negative is more difficult to work than one of medium density. Do not forget when making the negative that the tone values must be preserved.

Backgrounds. Do not be content with correcting defects in the face and figure. Many an otherwise satisfactory picture is spoiled by an obtrusive highlight or accessory. The knife will remove objectionable high-lights from furniture, carvings, etc.

In case the background is too assertive, or where it is desired that emphasis be given to make such an object or a piece of statuary stand out from its surroundings, the following procedure may be followed:—With a sharp knife cut through the film round the object; soak the negative until the film is quite soft; the offending background film can now easily be removed, leaving clear glass in its place, while the other parts will adhere to the glass.

43

# Working on the Glass Side of the Negative.

By GEORGE KING.

NE must not forget that a negative—like many other problems in life—has two sides, and that both sides may be worked on by the retoucher.

To prepare the plain glass side to take pencil or crayon, it is coated wholly or in part with matt varnish, *i.e.*, a

solution which on drying gives a ground-glass-like surface. When this is quite dry, one can work on it with a soft pencil or crayon. But what is still better is a paper or leather stump, and finely powdered lead. The economically minded may collect this lead powder from the sand paper used for sharpening purposes. But the artists' colourman supplies finely ground black crayon powder from a penny per packet up to sixpence per bottle; a threepenny tinfoil packet will last the amateur a long time. It is sometimes sold as "stumping chalk" or "crayon powder."

The next method of adding density is by means of a layer of fine grain paper, i.e., papier minéral

or papier végétal or French tracing paper.

To get the paper flat, first place it between sheets of damp blotting paper. Then run a gum line round the edge (glass side), of the negative. Press the negative down on the paper; when it is dry the paper will be flat and taut. The paper can then be worked on with pencil, stump, or brush.

A third method is to cut out pieces of tracing paper the exact size of the place requiring strengthening, and fix these to the glass side by means of thin gum or starch paste. This method gives somewhat sharp edges, which may or may not be wanted.

A fourth method is to tint or colour matt varnish by dissolving in it a few flakes of iodine, or some of the yellow or red dyes. This is then applied to the back of the negative, and the





PRINT FROM UNTOUCHED NEGATIVE.

Fig. 34.

C. H. H. PRINT FROM NEGATIVE SUFFICIENTLY RETOUCHED FOR COMMERCIAL PURPOSES.



Face photographed from the wrong side, showing the nose slightly crooked. It should have been taken from the other side as in Fig. 10b.



Same negative. Nose put straight by slight touch of scraping lance and retouching. Only the nose is retouched, other parts of the face not touched.

parts not wanted removed by scraping—see below.

A fifth method is to mix water colours with gum water of moderate strength, and locally apply this to the glass side of the negative. This method is only suitable for small patches, reflections in water, etc.

So far we have only dealt with methods of adding density generally (tracing paper), or, locally (stumping). We naturally seek for methods of reducing density. On this side of the negative we

can only do this indirectly.

Suppose we cover the entire back of a negative with papier mineral, and locally use the stump. The total effect is the addition of a layer of paper all over the negative, plus the addition of some lead or crayon. If now we cut away all the paper except the parts which have been stumped, we still further accentuate the contrast value of the parts of the paper which we leave. Or instead of cutting away the paper, we can render it more transparent by the local application of glycerine, gum water, hard paraffin wax dissolved in kerosene, etc. In actual practice, what is usually found best is-first, to cover the entire negative with paper; then cut away the paper over those parts appearing already quite dense enough, leaving plain paper over those parts requiring slightly strengthening; finally to add colour or crayon to those parts requiring considerable assistance or re-inforcement.

Ordinary tissue paper may be used for large landscape negatives, but, as it is apt to give a mottled effect, it is better to use either fine tracing

paper or papier minéral.

Of course the foregoing methods may be combined. Thus, in the case of a thin negative with ample detail, one may cover it all over with paper. Then, on the top of this, a second paper may be placed, from which selected portions have been cut away, etc. Some parts may be strengthened with colour, others with the pencil or crayon. Parts cut away with a sharp edge, other parts with a finely serrated edge and so on. All this, however, is perhaps not retouching in the ordinary sense of the word, though it may be done with the view of aiding or saving retouching proper.

# Practical Hints on Retouching.

By W. H. SMITH.



HEN using the knife or scraper see that the film is quite dry, the light good, hold the blade at right angles to the film, use a kind of scooping stroke (i.e., beginning and ending gently), and do not try to remove too much at one stroke. Keep the knife edge

sharp. Use only as much medium as is necessary. If too much be put on the negative will be tacky and work granular; if too little, the work will be

scratchy.

When sharpening the leads use a combined rubbing and rotating movement, and finish off by a few rubs on a bit of ordinary (not smooth) brown

paper.

Do not trouble to spot out pinholes, which come in the shadow parts of the drapery or background, as your spotting is likely to show (in the print) more than the pinhole would had it been left alone.

For spotting use Indian ink, a fine brush, and only just enough moisture to carry the colour. If the brush is too wet your spots will be dark circles

with clear centres.

If you have got on all the lead you can on a part already treated with medium, and yet want to get on a little more, then fold up a tube of notepaper and direct a stream of warm breath (breathing slowly) with this tube. This will revive the tooth of the medium and restore its stickiness, when a little more work can be done. The negative must be well dried after this treatment and before printing.

If the negative is very thin use white blotting paper as a reflector; if of moderate density, use smooth white card; if dense, use a mirror reflecting

skylight.

The first thing to do is to stop out all the pin-holes or clear spots (dust spots) which occur in the high-lights and half-tones. This is most important, because if these strong spots of light are left they upset

our power of judging density far more than would be supposed. Take a waste negative and hold it up to the light; then with a pin make one or two clear spots in a dense part, and again hold it up to the light. The densities near the spots now seem quite different from what they were before.

Order of Work.—1. Stop out all pinholes and clear spots and scratches with pencil or brush. 2. Remove freckles and temporary skin markings. 3. Turn the negative upside down; get as far back from the negative as comfortable sight permits, and "even up" patches due to blotches in the skin, sallow or red markings, sunburn, etc. 4. Now take a trial print and soften exaggerated lines and furrows. 5. Finally, attend to the modelling and do what is needed in the way of softening any undesirable expression.

Rest the Brain as well as the eye by having two or three negatives in hand at one time. It is a common mistake to begin and finish a negative straight away. By alternating, our judgment is kept alert, and interest in the work does not flag.

Varnishing after Retouching.—A negative from which several prints are to be made will require varnishing as a protection against the retouching shifting, and also against the risk of silver stains. Varnishing is done in the ordinary way with one exception, viz., that instead of pouring on the

varnish in a pool near the middle of the negative it is better to pour it on very gently towards one corner A, where there is little or no retouching, then tilt the plate for it to flow towards B, then towards C, and draw off the excess at D. This method will minimize the chance of the varnish shift-



ing the retouching. If the work is shifted your plate was too warm. If the varnish "blooms" the plate was not warm enough.

[Note.—Varnishing negatives is ably treated in the "Practical Photographer," No. 7. "After treatment of the negative," vide p. 26.]

# Hints and Jottings.

By VARIOUS CONTRIBUTORS.

When buying or making a retouching desk, bear in mind the following qualifications:—

(1) It must be firm enough to be free from vibration. (2) It must be large enough to take the largest negative likely to be used. (3) It should be strong enough for the hand and arm to rest upon in safety. (4) It should be capable of being adjusted at various angles. (5) The reflector also should be adjustable in position and angle. (6) It must be so fitted with blinds or shades that the light entering the eye is only that passing through the negative. (7) It should be portable, so that it may be shifted from place to place according to the time of day, season of the year, direction of wind when working at an open window in warm weather, etc. (8) It should fold up into a small space for the convenience of storage when it is "off duty."

The Hand Rest.—For comfortable working at the desk it is necessary that the arm and hand be suitably supported. The best support for the arm is a firm table upon which the desk rests. For the hand some workers use a long thin strip of wood about a foot long, three inches wide, and one-eighth inch thick. There is, however, a danger of this scratching the film. The present writer finds the most comfortable plan is to fold a piece of stout, smooth brown paper into two equal parts and cut out a circular hole about 3 inches in diameter through both thicknesses, and situated some four or five inches away from the creased edge of the paper. This prevents any heat or moisture from the hand affecting the negative film. Also it can easily be fixed to the desk by the aid of a drawing pin, and readily shifted about when required.

**Shadows** have not only varying degrees of darkness but characteristic shapes. When lightening or darkening a shadow (or a light) it is important to preserve its character and shape.

Fig. 37.





Fig. 38. F.C.L. STUDY OF SKIN WRINKLES.

In Fig. 38 the furrows about the sitter's left eye have been softened, but not entirely obliterated. The dark line of an eyelash removed. A skin stain below the eye has been removed.





Fig. 40. F.C.L. EXAMPLE OF THE USE OF THE SCRAPER NEEDLE. See p. 62.

In Fig. 40 the white spot on the drapery, near the sitter's right cheek, and several other similar bright parts below the chin, have been removed. Other over strong high-lights about the mouth have been subdued, and the skin texture softened.

The Touch.—The student is advised to learn to use with equal facility all kinds of touch (e.g., dot, comma, cross hatching, wavy line, etc.) and then employ all indiscriminately just as the shape and size of the patch requires. Take a bit of white card, roughly draw a circle of quarter inch diameter and then fill it with an even tint by dots only, then repeat with commas, and then with cross hatching and so on. Next draw a small square, quarter inch sides, and fill it with an evenly graduated tint from very light at one side to full dark at the other.

A small sized head or one of medium size in sharp focus requires a finer touch than a large head. The latter is better suited by a somewhat bolder, freer handling.

Direction of Line.—This is of great importance. Of course no hard and fast rules can be given. But as a general principle, the direction of line should harmonise with the contour of the part under treatment. This may best be understood by looking at a steel engraving or etching by a good artist. For instance, it will be noticed that the lines of shading of the nose, mouth, eyelid, ear, etc., for the most part follow the general contour of the various forms. A long narrow face should not be emphasised by up and down lines, but a round "full moon" face may be subdued by them. W. R. D.

Patchiness is a common defect with beginners. It is frequently due to having one's eyes too near one's work. In order to give the eyes a rest it is an excellent plan to get up from the desk and walk to the opposite end of the room, glance round the room, etc., and then slowly walk towards the retouching desk, noting at what distance any patchy effect is visible. This defect is also liable to arise if a somewhat thin negative is being worked in a strong light.

Adjust the Light to the Negative.—A thin negative requires a rather feeble soft light, and a dense vigorous one requires a strong light. If the light be too strong for the negative the fine shadow details are lost in the glare. If not strong enough the gradations of the high-lights cannot be seen.

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Modifying the Strength of the Light.—In day-light this may be done by moving away from the window, or interposing one or more sheets of tissue paper between the light and the reflector. At night the lamp flame may be turned up or down, or put further away, or ground glass interposed.

Artificial Light.—The most comfortable light is that from an incandescent gas mantle surrounded by a ground-glass globe. This may be surrounded by a card reflector throwing the light down on to a sheet of clean white card or opal glass. If ordinary gas flame be used its yellow colour may be agreeably tempered by using a glass globe filled with water, tinged to a light blue colour. An ordinary table water bottle or carafe, or even a well-cleaned florence oil flask, will serve, or a gold-fish globe may be used. (See p. 64).

H. W. B.

Retouching and Eyesight.—It is the opinion of many occulists that headache is frequently due to defective vision or the use of wrongly selected spectacles, i.e., the effect of continuous straining of the apparatus of vision. Anyone who finds himself suffering from head or eye ache after retouching should therefore consult an oculist. Many beginners make the grave mistake of putting their faces far too close to the negative. This is not only bad for the eyes, but also is sure to result in patchy and bad work. Any one who cannot see the finest details of his negative at a distance of 12 to 15 inches probably needs spectacles, and should consult first an oculist and then a properly qualified optician.

The use of rubber.—It seems to be known to only quite a few old hands that ordinary "ink eraser" can be used for rubbing down the film of a negative. One need hardly say that this somewhat drastic tool requires careful handling. It is a good plan to take a piece of celluloid, such as an old film and in it cut an opening or space the size of the patch to be rubbed down. If this be laid on the film one then can use the ink eraser more freely. The present writer was by an esteemed friend presented sometime ago with a rubber pencil, i.e., a

thin strip of eraser encased in cedar. These things are obviously articles of commerce, but several enquiries have failed in ascertaining where they may be purchased.

Drapery, Furniture, Backgrounds, etc.-Who of us has not seen an attractive portrait marred by an ugly light from a picture frame in the background; a streak of strong light from a chair back; a row of sparkling buttons, on a dress, etc.? The retoucher should be able to scrape away these eyeattracting lights, modify the sharp edges of shadows, and occasionally strengthen patches of shadow which come with assertive darkness. Our lady friends will not object if we can tone down a crease or wrinkle in a bodice, or soften a sharp fold in the drapery. Jewellery, spangles, jet trimmings, and other shiny things are apt to yield ugly spots of light, and must give way before the retoucher's knife.

A lady in a light bodice against a dark background may have a waist which seems a little larger than it did yesterday when she wore a dark costume, and will perhaps not mind our removing just the "merest trifle," and also softening the outline.

The student must make a point of carefully observing the difference between the angular folds of stiff silk, satin, etc., and the more graceful, less accentuated folds of chiffon, muslin and softer materials. Also he must note how the high-lights on velvet are small and somewhat narrow, while those on satin are brighter, broader, and so on. Again he will notice that a large feather often has its high-light along the central rib or axis, and that it takes the form of a curved line, while the high-light on fur generally is along or near the edge, and takes the character of a series of disconnected short lines or dots.

W. H. M.

Mixing Colours.— The object of mixing the colours (elsewhere mentioned) is to get a tint which, when dry, matches the surrounding part of the negative film. The black may best be tempered with blue or carmine for that purpose, or sepia used alone for light patches. For stopping out scratches or pinholes in the denser parts we

may conveniently use opaque pigments like vermilion, Indian red, etc. The beginner usually makes two mistakes when commencing brush work. He uses the colour too wet and also tries to put on too much colour. The usual consequence is a ring of opaque colour with a clear centre. The remedy is a brush nearly dry, i.e., but lightly charged with colour. For first practice let him try his hand on a bit of clean glass—or scratch a few holes in a waste negative. He will soon find that if he adds a few drops of his gum solution to the colours on his palette he will find them spreading and also drying much more evenly. If too little gum is used the work will tend to show streaks, if too much be used the colour dries shiny and is apt to peel off.

Round clear spaces on the negative (caused by air bells clinging to the film during development) ought to be filled up by one even side stroke of the brush. This can easily be learned by a little

practice.

Palette.—The bottom of a clean dinner plate makes an excellent palette for mixing colours with

gum water.

Gum Water for Spotting Negatives.—Pick out a teaspoonful of clean bits of gum arabic. Lay between clean brown paper and crush to a powder. Dissolve in two ounces of water. Add two drops of carbolic acid. Stir very thoroughly, allow any sediment to settle and then decant the clear part for use.

Brushes for Spotting.—The best kinds are the brown-red sables with metal ferule and wood handle. The beginner may start with No. 00 (5d.), No. 1 (5d.) and No. 3 (8d.). When buying see that the brush has a good, even point. Dip the brush in water or moisten in the mouth, then, holding it like a pen, touch the finger nail sharply and lightly, noticing if the point is springy, and also keeps a clean point without any struggling hairs.

Colours or Pigments.—The moist water colours in porcelain pans are most convenient. The following will be found useful:—Ivory black, French blue, Carmine or Lake, Indian or Venetian red, vermilion, warm sepia. The half-pan size is recommended. When opening a pan for use do

Fig. 41.





Fig. 42. F.C.L, STUDY OF SKIN TEXTURE, SHADOWS, AND FRECKLES.

In Fig. 42 the shadows of the ear have been softened. The freckles are removed from the nose and cheek. The more noticeable freckles have been removed from the forehead.

Fig. 43.



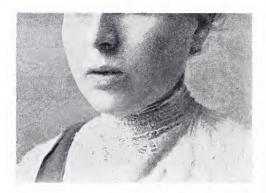


Fig. 44. F.C.L. EXERCISE IN SHADOW MODIFICATION.

In Fig. 44 the teeth have been nearly removed by scraper needle (Fig. 6 ), and the upper lip slightly lowered in position. The shadow under the lower lip is slightly modulated.

not entirely remove the waterproof covering, but simply snip away one corner, uncovering a space just large enough for brush work. In this way the covered part keeps in better working condition.

Wash your brush in clean cold water after use, and arrange the hairs so that they may dry in a good shape. Lay the brush in a horizontal position for drying. By this kind of care a good brush will last "almost for ever."

A.M.

Study of Anatomy.—Some writers on retouching have laid stress upon the need of a knowledge of anatomy for the practice of this art. Doubtless such knowledge may at times be of service, but it will hardly repay the student to concern himself to learn the names of the various facial muscles, etc. What will repay him far more is the study of living faces. If he is fortunate enough to number among his friends someone who has a mobile and not over fleshy face, and who can assume various expressions, such a friend can be of the greatest possible service. Let the student ask such a friend to assume a certain expression—grief for instance. Then let the student endeavour to sketch the lines of his friend's face. (There is no need to attempt a portrait or likeness). This done, let the model assume an opposite expression-let us say mirth; and now the student must again draw the same facial lines, carefully noticing and recording their change of direction and position. Similarly with many other expressions, as surprise, pleasure, annoyance, a staring and a sleepy expression, etc. It is of more use for the retoucher to know what are the changes of shape, form, direction of these lines than it is for him to know how they are produced, or if brought about by one, two or three muscles.

When making these studies of line it is desirable that the model retain the same position, so that the differences due to change of position of head, lighting, etc., be not introduced to complicate the study.

Lighting.—The student will then pass on to study the changes and effects due to different degrees and directions of lighting. For if he attempts to soften shadows or accentuate lights without some know-

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ledge of this kind, his retouching is very likely to make matters worse rather than better, and bring his art into ridicule and contempt.

Position.—The position of the head, relative to the spectator, also calls for study. Thus a nose may look fairly straight from one side and markedly crooked from the other side. If the head be thrown back the nose is apparently shorter than when the forehead is inclined towards us. Again, a mouth abnormally wide in full face view is not so likely to be noticed in profile and so on.

Need for Study.—The human head and face affords a never ending source of study, and the retoucher who aspires to be something more than an unthinking machine will seize every convenient opportunity of studying good portrait paintings and engravings. He will also compare the features of his fellow travellers opposite him in the 'bus and train, noting the effects produced by modified lighting as when passing tall buildings or under arches, etc. Presently he will find himself becoming something of a thought reader, i.e., filling up gaps in scrappy conversation by the aid of changes of facial expression.

The Forehead.—In dealing with this part most workers err considerably on the side of overwork. A moment's thoughtful glance at a forehead will show that it is not a flat surface, as generally represented, but is curved, though slightly, in all directions. There are few more common mistakes than that of making the forehead appear one even tint nearly all over and often right up to the edge of the hair.

There is an old saying among painters that the highest light in a portrait is the part that would first get wet in a shower of rain falling in the same direction that the light is coming. In most cases of ordinary lighting this would be the brow or forehead. A study of good portrait painting will show us that the highest light (excepting the glint in the eye) is usually put on the forehead. To this highest light all others (on the cheek, chin, etc.) should be made subservient, or patchiness will result.

The Ears sometimes have overstrong points of light (due to a moist or very smooth skin) which require slightly tempering. Ears which stick out from the head should be kept as quiet as possible, by reducing the high-lights and strengthening the shadows, so as to keep down excessive contrasts. One common defect or unpleasant effect in a photograph of an ear is that of scattered lights. We often have two, three, four, or more small patches of strong light, and as many or more patches of shadow. Patchiness of this kind is never pleasing and often irritating.

Throat and Neck.—The larynx and collar bone in thin people are apt to have too much prominence owing to over-strong shadows and sharp contrasts.

The Nose is perhaps the easiest part of the face for the retoucher to deal with, and it is perhaps that reason which makes the ordinary worker careless or mechanical. He generally contents himself by putting a straight line of light down one side and softening the cast shadow on the other side. As a matter of fact this line of light is in nature never quite straight and is usually a line taking several directions. It is often also made too strong and too long. The spot of light near the tip is often stronger than desirable and requires softening. This is especially the case if the skin be at all moist. A strong light is apt to suggest a swollen part. If the shadow requires much work the exposure or development is probably at fault. In softening the nose shadow care must be taken to preserve the modelling of the parts in shade.

The Cheeks.—High cheek bones, as they are usually called, are frequently accompanied by the cheek high-light being unpleasantly near the eye, and often by a rather too strong shadow just below this light. These effects are emphasised by a strong top light. Our remedy is to reduce the light slightly and to fill up the hollow or shadow, and at the same time blend the two by spreading out the light a little and at the same time bring the strongest part a little lower down. The shadow is not to be entirely removed but spread out and softened.

The Eye.—If in a room we catch the reflection of a well-lighted window in the convex side of a silver teaspoon, we shall notice that we get a distorted image, and if there are two windows in the room we shall probably get two images. The same kind of thing is likely to happen in the case of the eye. In a portrait taken in a room we may get a miniature picture of one or more windows. It will be desirable to entirely remove or greatly subdue all but one of these reflected images, and seeing that practically all painters are agreed in representing the catch light of the eye as a wedgeshaped patch, we may safely follow their lead until we are quite sure that we have good grounds for departing from it. This catch-light should not be too large, nor too strong, nor too sharply defined, or we shall produce a staring expression.

The White of the Eye in health is never anything like white, but of a blue or pinkish grey. In the normal negative this is more likely to print too light than too dark, but the small blood vessels in this part (in large heads) usually show too dark. Care must therefore be taken to lighten these lines only just sufficient to bring them up to the surrounding density. Any over-strong lights on this part of the eye will require slight reduction with the scraper or knife.

The Blood-shot Eye will, of course, come too low in tone in the negative, and so requires very careful strengthening, but it is better to err in getting the "white of the eye" too dark than too light in the print.

The Eyelids require delicate handling. The edge of the upper lid casts a shadow on the eye-ball. This must be preserved and not removed as is often done in thoughtless work. Without this shadow the eye-ball will look too large, and project in a manner suggestive of a certain (but somewhat rare) disease.

The lower lid also has its cast shadow. This again is usually removed altogether or modified far too much. Of course, the "black under the eye" of the ordinary negative is not true to nature, nor is the absence of shadow. The lines or furrows here may





In Fig. 46 a small portion of the lower cheek outline has been removed and hollow filled up, the strong-lights in the eye subdued and face softened in outline.

Fig. 46.

Very slight
retouching,
i.e., only just
enough to
harmonise
the lights
and shades
without
altering the
likeness.





Fig. 48 shows the effect of the right kind of retouching put in the wrong place, and so largely

eyes, nose, lips and cheek.

destroying the likeness.
Note.—The

F.C.L.

The negatives of Figs, 47 & 48 were precisely similar in every respect except a slight change in the position of the eyes.

Fig. 48.

Fig. 47.

require slightly softening in people of middle and advanced age, but their entire removal will certainly remove some of the likeness as well.

Tears.—It may be news to some to know that we are always having a gentle stream of tears flowing from the lachrymal or tear gland, at the upper outer angle of the socket, over the face of the eyeball and out through a tiny little drain-tube at the inner corner of the eye into the nasal chamber. If the tears flow quicker than the drain-tube can carry them away they overflow. In a strong light this is likely to occur. And with some eyes there is always excess of moisture in the inner corner. This is apt to catch and reflect the light too strongly. In that case, this corner light will require the cautious application of the knife.

Eyelashes are of more importance in portraiture than is generally recognised. The beginner usually falls into one or other extreme. Either he removes them by retouching the negative or exaggerates them by painting on the print. Sometimes a tearmoist hair will give a streak of strong light and must be softened. Movement may produce a "blurry" line. In that case one or two hairs may be assisted in definition. But seldom, if ever, should any one hair be sharply defined. It is general rather than individual attention that is here required.

**Eyebrows** are like eye-lashes in as much as one needs a general suggestion of *hair* rather than individual *hairs*. Persons with red or yellow hair will usually require the brows slightly lightening.

"Crow's-feet"—The wrinkles or folds which with age gather towards the outer angle of the eye must not be regarded as signs of age only. They are often found in quite young people of a merry, laughter-loving disposition. Indeed, what is called the laughing eye or the twinkle of the eye is largely due to these lines coming and going as the cheek is raised in laughter. The conscious laugh comes from the eye, but the unconscious laugh is more an eye than a mouth movement.

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The Mouth.—We hear much about expressive eyes, but as a matter of fact the mouth is a far greater factor in facial expression. Every one knows in a general kind of way that when the corners turn down we get a sorrowful or "hang dog" look, while if they turn up something like mirth is suggested. The matter, however, is not quite so simple as this statement would suggest. Every expression is not a question of one feature only but of the whole face. Thus in laughter the up-turned mouth corners alter the line between the nose and mouth, the cheek is raised, and the "laughter lines" round the eye corners appear—reminding one of Tennyson's miller with

"The busy wrinkles round his eyes."

accompanying

"The slow, wise smile, etc."

If the corners turn down more than seems desirable, we may soften the ends and at the same time reduce the shadows a little, but great care is required not to alter the sitter's mouth in general character or the likeness will suffer. Thus a long, straight mouth with thin lips may be shortened a little, and a little light and shade added. But to convert such a mouth into a rosebud or cupid bow would be ridiculous and deservedly fatal.

The Lips often require special attention on account of their non-actinic red colour. The upper lip being in shadow will probably come too dark in the print, and the lower lip if at all moist or shiny will show a bright spot or patch. The total effect in the print is a suggestion of black and white, not red lips. Strongly marked cracks in the lips will come as wiry lines and call for softening and blending into the surrounding parts.

Teeth.—With many people it is unnatural to close the lips, but often an effort is made in the photographer's studio, with disastrous results. If the lips are left naturally parted, the teeth are apt to eatch a glint of light and come too light. This, of course, requires considerably softening, but excessive scraping must be avoided or the teeth will look decayed.

The Upper Lip.—The nose usually casts a shadow on the upper lip. There are also two upward lines of light on the lip. These three factors very largely determine the shape of the feature. Their relative position calls for careful study.

The Lower Lip also casts a shadow on the upper part of the chin. This shadow requires handling with great reticence. If too light the lip seems swollen, if too dark a pouting lip is suggested.

The Chin.—It often happens that the high-light on the chin in a top light effect comes too strongly, and therefore needs reducing, so as to subordinate it to the chief light on the brow.

The Hair is often a trouble to the retoucher on account of individual straggling hairs catching strong lights, and appearing not only too bright, but too large, i.e., more like pieces of thick wire or string rather than fine hairs. Again, a few hairs may be very sharply defined against a mass of hair markedly out of focus. In such a case the oversharp definition may be softened and the overfuzzy part slightly sharpened. But it is very seldom, if indeed ever, that individual hairs should be suggested. It is hair in the mass, and not so many separate hairs that we desire. With dark or red hair we are apt to get exaggerated contrasts of formless shadows and small patches of strong light. The touch for working hair is a quite short line. Long lines will give a suggestion of wire or string.

Hands and Arms are best left alone as much as possible by the retoucher. The sharp angle of a bony elbow may be slightly rounded, and strongly showing veins on the back of a man's hand may require "evening up." Similarly, strongly-marked lines or skin furrows about the knuckles may be subdued. Strong light and shade contrasts may generally be subdued with advantage.

Children.—A rapid glance at several children's faces and heads will show us that while their features and head forms vary, yet for the most part they are all characterised by absence of lines or furrows. And when we see a child with lines we say what an "old looking" child. Hence to preserve

#### THE PRACTICAL PHOTOGRAPHER.

child character we must be on our guard against "lininess." Our next observation will teach us that the upper part of a child's head seems proportionately larger than in an adult, and also that the forehead often projects, showing two bumps over the eyes. There is usually a slight depression at the side of the eye. The nose is frequently small and depressed at the root. The cheeks are full and chubby, and the lips also full and well curved.

Old People often, but not always, possess just the opposite facial characteristics to those shown by children. Thus the bones of the nose are somewhat sharply marked, the cheeks flabby and flat, the mouth strongly defined but not very fleshy, while there are many lines and furrows that have no counterpart in the child's face. The cheeks fall inwards when teeth are absent. Very great care must be taken while softening harsh passages not to lose the character of age.

"Speaking Likeness." - One reason why commercial portraiture often fails to produce the "speaking likeness" is that the retoucher is usually entirely ignorant of the sitter's appearance, any has never seen him. Here the amateur who does the posing and negative making has really an immense advantage when proceeding to retouch the negative he has made, and has a rough print by his side to compare with what his sitter looked like when the negative was exposed. In the majority of cases that little "subtle something" which gives character is a trifling irregularity of feature, e.g., one eyebrow slightly higher than the other, one corner of the mouth turned up or down, a wrinkle round the eye, etc. The retoucher who does not know the sitter may, as likely as not, miss this bit of character and either obliterate it or accentuate it the wrong way. The amateur who has properly studied his sitter has no excuse in this direction.

Movement of the Sitter.—A very slight movement of the sitter during exposure is often an advantage rather than a disadvantage, because this movement tends to generalize form by giving a softened outline. Our attention is thus drawn to the face as a whole, rather than to individual features.



Fig. 50. Shape of mouth slightly modified, the outlines and shadows generally softened



Lighting harsh.
Negative slightly under-exposed.



Fig. 5I.

FROM AN UNTOUCHED NEGATIVE.

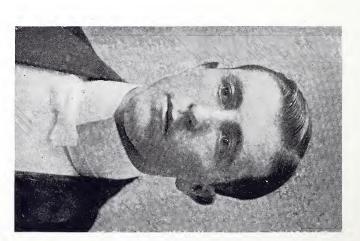


Fig. 52.

The furrows of forehead have been softened, the nose widened and straightened, and the scattered lights modulated.

Where one part of a face shows a slight movement, it is better to soften all the remaining parts than to sharpen up the outline and detail of the part softened by movement. Where one is dealing with the much wrinkled face of an old person, it will be helpful to soften the outlines generally, as well as to reduce the over emphasized marks of age, wrinkles, furrows, etc. For this purpose, a moderately soft lead will be more suitable than a hard lead. In working large heads, a small stump is very useful for softening outlines.

Retouching Varnish Bottle.—Instead of applying the retouching varnish or medium to the negative by inverting the bottle and then conveying a drop of varnish with the bottle cork, the following is a more convenient plan:-Select a sound and easyfitting cork. Cut off a bit of fine glass rod about two inches longer than the bottle is high. Round off the ends of the glass rod by holding them in a gas flame. Allow one end of the rod to become somewhat globular by keeping it in the flame a minute of two longer than the other end. Then bore a hole in the cork just large enough to take the glass tube with an easy fit. It is now an easy matter to carry a large or small drop of medium to any desired portion of the film by means of the rod and cork. This plan avoids the undesirable procedure of inverting the bottle, and keeps the neck of the bottle clean and dust-free.



Fig. 62.

Shadows and Form.—The beginner seldom adequately realises that shadows are more important than lights in determining form. For instance, in most cases, we get our idea of the shape of a nose not from the light but from the shadow side. Similarly, the shadow under the upper lip indicates a projecting lip or slightly open mouth as the case may be. The shadow under the lower lip may suggest a protruding lip or a strongly recessed chin, according to its form and intensity.

## THE PRACTICAL PHOTOGRAPHER.

A Useful Little Tool .- Select a large size sewing needle with a fat body, i.e., a No. 1 size. With a pair of pliers break off the eye-part of the needle. Seize the needle with the pliers and with a rotatory thrusting movement urge the point of the needle about half an inch into a small bit of firewood. Now take an ordinary flat-iron and support it face upwards between a few books on the table so that it may form a small anvil. A small flat-faced hammer will be required. Make the eye end of the needle red hot in the gas flame and then with the hammer and anvil beat out the end of the needle into the shape of a small penknife blade, i.e., sharp edged at one side with a flat back at the other. As the needle cools quickly it will call for a little alertness in carrying the needle to the anvil and dexterity in handling the hammer. Having roughly shaped our tiny blade—getting it as thin as one can in this way—then draw it out from its temporary handle, which will probably have got burnt during the repeated heatings, and insert the point in the wooden handle of an ordinary school penholder. The metal part of the penholder is discarded.



Fig. 63.

We now must grind down our tiny knife blade on a hone or oil stone. This will require patience, but the worker will be rewarded in producing a scraping tool or retouching knife far better than anything that is at present on the market. Throughout the operation let him have in mind the shape of the straight narrow blade of an ordinary penknife. The end of the blade may be as thin as possible, provided it is stiff enough not to bend when in use for scraping away fine details.

Some Common Mistakes.—Among the many mistakes of ordinary retouching we must give first place to that of overdoing the work. Thoughtlessness makes a man's work mechanical. One of the most important things is knowing when to stop.

The next mistake is that of loss of texture, i.e., making the flesh of young and old all alike and yet unlike flesh. It is far better to leave the flesh a little rough than too smooth, like a billiard ball or a teacup. Again, thoughtless work will give the same texture to such different things as flesh, silk, The foolishness of this merely requires to be mentioned in order to be recognised. Then again, mechanical workers drop into the way of always putting the highest light in the same place, i.e., on the forehead, or cheek, or tip of nose, without paying regard to the position of the head or direction of the lighting. Next the mechanical touch is to be avoided, for a moment's thought will show that as textures vary, so should our touch vary so as to harmonise with the texture. A good workman will be equally facile with any and all styles of touch, and also equally able to use one or the other, as circumstances demand.

Age and Character.—It is important to bear in mind that we can retain the character of a face without making any sacrifice to truth, and yet not interpret age in a noticeable manner. For instance, in women, age usually brings certain skin wrinkles about the eye and mouth. To remove these entirely would be to destroy character. To retain them as on the untouched negative would be to give them undue prominence, because the camera exaggerates their light and shade value. We therefore go nearest to the truth when we soften both lights and shades until these furrows are only seen when special attention is given to them.



Differences of Opinion will be found in the foregoing pages, which at first sight may seem contradictory or irreconcilable. But on mature consideration these differences will be found to contain a broader teaching when taken together than could be derived from any single statement. Such differences will serve a valuable purpose if they prevent the beginner thinking there is any "royal road" or "only way."

## THE PRACTICAL PHOTOGRAPHER.

Formulæ, Hints, etc.

# By THE EDITOR.

Dry Retouching Media (in form of fine powder).

1. Finely powdered pumice stone.

Equal parts of ground cuttle-fish bone and resin.
 One part fine pumice and two parts powdered resin.

In all cases the powders should be sifted through two thicknesses of the finest muslin and then applied with the finger tip and rubbing in a circular direction.

Liquid Retouching Media.

- 1. A teaspoonful of powdered resin in half a pint of turpentine.
- Turpentine, 4 ozs.; resin, ½ ozs.; gum damar, 60 grs.
   Turpentine, 2 ozs.; oil of spike or lavender, 2 ozs.; resin, ½ oz.
- 4. Alcohol, 2 parts; gum sandarac, 1 part; benzole, 4 parts; acetone, 2 parts.

## Matt Varnish.

 Ether, 1 oz.; gum sandarac, 50 grs.; Canada balsam, 8 grs.; benzole, ½ oz.

2. Ether, 1 oz.; gum sandarac, 40 grs.; gum mastic, 10

grs.; benzole,  $\frac{1}{2}$  oz.

Ether, 1 oz.; gum sandarac, 30 grs.; gum mastic, 30

grs.; benzole,  $\frac{1}{2}$  oz.

The gums are first dissolved in the ether, any sediment in them allowed to settle, and the clear part carefully decanted. The benzole is then added. The quantity of benzole above given yields a moderate grain. By increasing the ½ oz. to 6 drams, a coarser grain (suitable for large work) is obtained. For small portraiture the benzole should be reduced to 2 drms. which yields a correspondingly finer grain.

For Colouring Matt Varnish.—Iodine, dragon's blood, chrysoidine.

To Remove Retouching Varnish.—Rub with tuft of rag moistened with turpentine.

To Remove Matt Varnish.—For sharp outlines use a knife and then remove the bulk by rag dipped in methy-

lated spirit.

**To Remove Negative Varnish.**—Place the negative in a porcelain dish, cover well with methylated spirit. Cover the top of the dish with a sheet of glass, and stand the dish in a second somewhat larger one containing a little hot water. Then rub gently with tuft of cotton wool.

Clear Coloured Varnish.—Ordinary negative varnish or plain collodion may be cleared by adding to it quantum suff. of a strong solution of aurantia in alcohol. This is applied to the glass side of the negative and the parts not wanted removed in the manner above indicated.

Coloured Solutions for Modifying Artificial Light.—
A few crystals of copper sulphate, dissolved in water, gives a green coloured solution, which may be changed to blue by the addition of a few drops of strong ammonia.

# Stray Thoughts on Retouching.

### WILFRED A. FRENCH, A.M.

ANY years have passed since the phrase "with photographic accuracy" came into vogue and was employed with a sense of evident satisfaction by writers in nearly every department of literature. Other expressions were coined for the purpose of denoting the fidelity of execution of an object or a scene, or the precision of a technical achievement—all

in recognition of photography as a reproductive art, accurate and reliable. It is curious that these expressions have not only been incorporated in the English language, but are still freely used, notwithstanding the fact that photography has been obliged to relinquish its claim of being an entirely trustworthy means of reproduction. Indeed, it is not too much to say that, as an instrument of deception and chicanery, as employed to-day, the photographic camera seeks its equal in vain; but this supremacy is the very antithesis of what was intended by its originators - Nièpce and Daguerre. The extraordinary beauty and perfection of the daguerreotype dispensed with the necessity of retouching; indeed, it is difficult to imagine a method by which the extremely delicate surface of the pristine photograph could have been treated for the purpose of retouching, if, in truth, any were needed. It is a pity that, as the greatest of all sciences was developed and perfected, its most glorious achievement - the daguerreotype - was relegated to virtual oblivion.

Among the many truths demonstrated by the daguerreotype is that one of the features of modern photography—the untouched negative—is the immediate result of a defective method, and the sooner it is corrected the better. The remedy lies, in a measure, with the photographers themselves, for most of them work with decidedly inadequate apparatus and under conditions not altogether inspiring, a subject which we hope to agitate in the near future. In many cases it is the unskilled worker whose negatives require the greatest amount of retouching. The ideal negative proceeds only from a union of happy circumstances; that is, a suitable objective, an excellent sensitive plate—both used by a master-hand—and expert chemical manipulation.

In considering negatives destined to receive a deposit of plumbago, one must take into account the inability of the photographer to control adverse conditions of atmosphere. light, and kindred physical obstacles. The resulting shortcomings, ultimately manifest in the negative, are due to no lack of skill or ability on the part of the artist, and the work here required of the retoucher is perfectly legitimate. Equally excusable is the removal with the aid of the retouching-pencil of objects or effects in the negative, for which neither the artist nor any part of his apparatus can reasonably be held accountable. We object only to the existence of an evil — which the retoucher is called upon to rectify - that is, the direct consequence of poor workingtools, inadequate surroundings, or positive ignorance or carelessness on the part of the photographer, and which cannot be ascribed to photography per se. The old adage that a good workman with poor tools can do better work than a poor workman with the best of tools does not always hold in photography, especially in portraiture. "The best is none too good for me," is a remark frequently uttered by the truly skillful artist. He must have materials of the highest excellence, it matters little what they cost, and the knowing ones prefer to patronize such a man. All the same, we know several skillful workers of high repute who to-day are making all their portraits with rectilinear view-lenses, seemingly ignorant of the fact that a regular portrait-lens - naturally one of high reputation — will impart to the portrait a greatly superior effect of roundness and plasticity to all the retoucher's art in the world.

Every one familiar with the action of the camera, as seen in portraiture, recognizes the necessity of retouching, as understood to mean the process of modifying the exaggerated appearance of structural inequalities or blemishes in the complexion. We all know that the human face, when lacking regularity or beauty of features, will often assume a mobility or charm of expression, rivaling the fascinations of an artist's ideal. In observing the change and play of the features we are not conscious of the physical structure of the face and ignore, most of all, the existence of minor defects in the countenance, unless, indeed, they approach a positive deformity. In the photographic portrait the face is in absolute repose; we miss the sparkle of the eyes — the mirror of the soul - the play of the muscles and color of the complexion. A print from the unretouched negative reveals, in a more or less accentuated degree, the hated freckles, the irregular outline of the chin, the annoying curvature

of the nose, the drooping eyelid, the offending mole, the tired look indicated under the eyes or a series of wrinkles. It is generally understood that these tell-tale evidences are taken care of by the photographer without special instruction from the sitter, who, however, has the privilege to suggest to what extent the negative shall be retouched. No person can be blamed for wishing to look his best, and especially in a photograph, which is subject to inspection and criticism more than the original. We shall not go into detail as to the best methods of retouching or even as regards the expedients for dispensing with it. That will form the subject of another chapter. We will reiterate, however, that the prime factors in diminishing the necessity of retouching are, first, a true portrait-objective, designed exclusively for portraiture; second, full exposure; third, a suitable developer; fourth, sufficient skill, care and judgment to use these essentials intelligently and to the best advantage. total effect of the image should be soft, round and harmonious, and it will be found that, working under conditions such as these, no recourse need be had to orthochromatic plates, however strongly their use in connection with portraiture may be urged. This class of plate, one of the most valuable of contributions to the practice of photography, is very useful in translating the color-values of a variegated costume, but is of limited utility in rendering the complexion.

It would be folly to more than allude to the anatomical monstrosities of a certain class of workers, brazenly put forth as portraits in photography. Here, indeed, are opportunities for sound missionary work awaiting the retoucher, who, however, would have his hands full in attempting to restore to a normal, sane appearance some of these distorted portrayals of human faces and limbs. Strange as it may appear, most of these victims, whose portraits reveal intense physical suffering, do not seem to have relished the "operation" of having their pictures taken by the soi-disants photographic artists - photographic surgeons were more apt a term — and are not only entirely satisfied with their counterfeit presentments, however hideous and gruesome they may be; but, in complete sympathy with the authors of these abominations, they scorn the profaning hand of the retoucher. Grâce à Dieu, it is but a passing fad. We wish we could be as sure of the doom of the retoucher who delights in imparting to the human face the smooth and monotonous texture of an egg.

#### Notes and News.

THE following books on subjects treated of in this number can be furnished postpaid at the prices given:

BUTT, DRINKWATER. Practical Retouching, including directions for the after-treatment of the negative. 5 x 7 in.; pp. 78 and index; illustrated. 1901. Canvas boards, 50 cents. English. Chapters reprinted from photography.

HUBERT, J. The Art of Retouching. 1896. English. Cloth, 50 cents.

JOHNSON, ROBERT. The Art of Retouching Negatives and Finishing and Coloring Photographs. 87 pp.; 7 plates. 1898. Cloth, \$1.00

English. The standard manual on its subject, and altogether satisfactory. Written by a skilled retoucher.

Ourdan, J. The Art of Retouching. Illustrated. Cloth, \$1.00. An old but reliable handbook, illustrated with lithographed drawings, etc.

Photo-Miniature, The, No. 12. Retouching Negatives and Prints. 1900. Paper covers, 25 cents.

A practical guide for amateurs and professionals, describing the various methods of "touching"; modeling the features; the handling of negatives; finishing platinotypes, etc., with illustrations.

WEISMAN, CLARA. Artistic Retouching. A practical manual by an expert retoucher. 1904. Cloth, \$2.50.

Brown, Geo. E., Editor. Finishing the Negative. A handbook to all the processes between fixing and printing; with a special chapter on films.  $5\frac{1}{2} \times 8\frac{1}{2}$  in.; pp. 160; illustrated. 1902. Cloth, \$1.25.

English. This book covers a definite period in the history of a gelatine negative. It aims to tell everything the practical worker can want to know about those processes which are applied between the removal of the negative from the fixing bath and its arrival in the printing-frame. Plain and practical information, with standard formulæ and an abundance of illustration.

#### x x x

WE understand that the Kodak Press is about to issue a little volume entitled "Book of the £1,000 Kodak Exhibition," in which will be reproduced some sixty pictures from among the best shown at the recent kodak exhibition in London. A copy may be had at twenty-five cents, either from the kodak dealer or from the Eastman Kodak Co.



WE illustrate above the printing lamp and cabinet of the American Aristotype Company, described in our last issue.

The cabinet is 50 inches in diameter and stands about 5 feet high; weighs about 112 pounds. The top and bottom sections each accommodate ten  $8 \times 10$  size printing frames. The centre portion is divided into ten sashes, each one of which will carry four  $5 \times 7$  frames. Thus it will be seen that when the cabinet is completely filled with frames, it has a capacity of forty  $5 \times 7$  and twenty  $8 \times 10$  size frames. Should one desire to work only a portion of the capacity of the cabinet, handle a fewer number of frames, all he needs do is to place pieces of cardboard in the openings not occupied by frames. Should he desire to print from  $11 \times 14$  or  $14 \times 17$  size frames, he can readily remove from the cabinet one of the sashes which carries four  $5 \times 7$  frames, and fit the larger frame in the space made by the removal of the sash.

#### THE PRACTICAL PHOTOGRAPHER.

By removing two sashes as large as 20 x 24 size frame can be printed from in that space.

#### \* \* \*

THE AMERICAN ANNUAL OF PHOTOGRAPHY AND PHOTOGRAPHIC TIMES-BULLETIN ALMANAC FOR 1905. Edited by W. J. Lincoln-Adams and Spencer B. Hord, editors of the *Photographic Times-Bulletin*. New York, 1904. Styles & Cash. Price, paper, 75 cents.; cloth, \$1.25.

The "American Annual" this year lives up to its long and worthy record of achievement, and furnishes a pleasant feast of entertainment for both eye and reason. The illustrations are well selected, the most important being a good selection of the work of the Salon Club of America. The printers seem to have reformed in the matter of inks, and although still addicted to colors, have refrained from the colors which set our teeth on edge in one or two issues. The literary contents are of a distinctly high order of merit, and furnish most interesting reading. The usual complete collection of useful tables and formulas is in evidence, and the book is on the whole a full return for the price.

#### x x x

AMATEUR PORTRAITURE BY FLASH-LIGHT. WILLIAM S. RITCH, ROCHESTER, N. Y., 1904. Eastman Kodak Co. Price, 10 cents.

In this little manual the author, a very successful amateur photographer, details very carefully and fully his methods of flashlight photography, in simple terms. The book is fully illustrated with delightful pictures, and forms a very handy guide to this branch of home photography. It may be had from any dealer, or by mail, at the price quoted.

#### يى يى يى

DER EIWEISS-GUMMIDRUCK UND ANDERE MODIFIKATIONEN DES GUMMIDRUCK-VERFAHRENS. Anleitung für Amateure und Fachphotographen von R. Renger-Patzsch. Dresden, 1904. Verlag des "Apollo."

This handbook of the albumen-gum-bichromate process had its origin in the efforts of the author to find a simple printing process which would be both artistic and capable of giving detail when required. The process fulfills the requirements extraordinarily well, and is enthusiastically described by the author. The practical details are given with great minuteness, and the book will serve as a complete guide to any one desiring to use the process. It is well illustrated with a number of pictures showing the possibilities of the process.

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of the PHOTO ERA has proved a marked success, and has awakened among our readers a lively interest in the progress of artistic photography. The mounting of the pictures has proved to be extremely valuable and inspiring. We find, however, that the Edition de Luxe does not fully cover the field that was planned for it as an authoritative leader in pictorial photography. We have decided to replace it, therefore, with a new and entirely independent publication which will be entitled

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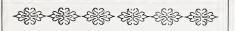
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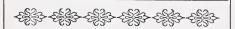
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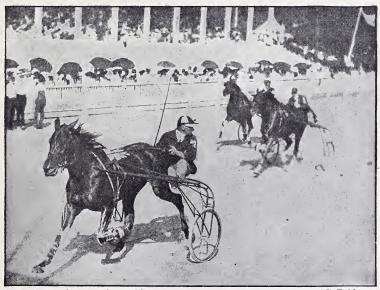
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Evidence of the quality of N. C. Film and of the perfect working of the Developing Machine has been coming in very rapidly of late, but we have never harped very much on the extreme speed of our film because we believe that speed is not the first desideratum in film or plate. A letter and photograph received

from Mr. Leonard B. Robinson of Sioux City, Iowa, covering the speed question are both so good, however, that we feel that every one who is interested in photography should have the benefit of them.

#### THE LETTER.

SIOUX CITY, Oct. 7, 1904.

EASTMAN KODAK COMPANY.

Gentlemen: — Like many other amateurs I have long used the Eastman roll films for ordinary work. Last month a big fair was held at Sioux City, and races were

### Eastman Kodak Company

given on the fastest track in the West and one of the acknowledged best in the country.

I wished to make a large number of negatives of these races and had not enough holders for dry plates. I therefore determined to see if I could not use my roll-holder and film, and get passable results. I could carry plenty of rolls and develop them in the Kodak Developing Machine, and hoped the convenience of using such material would compensate for not using the most rapid dry plates on the market.

I am sending you by this mail an 8 x 10 Bromide enlargement of one of my negatives made as above, full data being written on the back. The original negatives are all 4 x 5, and, while I believe this one to be a jewel in the way of high speed work, I have nearly a hundred others just as perfect.

This is another argument for your developing machine and is certainly proof of the extreme rapidity of your film. Recollect the lens worked only at f. 6.8.

Very truly yours, Leonard B. Robinson.

In addition to the data given in the letter Mr. Robinson gives the following facts:

"Iowa," pacer, property of H. Woods, Eldon, Ia., winning a heat in  $2:10\frac{1}{4}$  at Sioux City, September 9, 1904. Eastman N. C. Film, lens f. 6. 8,

exposure  $\frac{1}{600}$  second. Machine Developed Negative. Print enlarged on Eastman's Platino.

He pertinently concludes the data with the question:

Is Eastman's Film Fast?

#### ANOTHER GREAT VICTORY IN MAN-CHURIA

In the November 5 number of Collier's Weekly appears Frederick Palmer's account of the fighting at Liao-Yang, which he characterizes as the "Greatest Battle Since Gettysburg." The story of the battle is superbly illustrated by photographs taken by Collier's War Photographer, James H. Hare, and every one of them was made with a Kodak and the Kodak Developing Machine. On another page we give a reproduction from one of them showing Mr. Hare in company with a Japanese officer.

The success which the Kodak has achieved at the front would have been remarkable under any circumstances, but it is the more marked from

# Eastman Kodak Company

the fact that many plate cameras were taken to the front,
— or as near to the front as they could be carried,— yet practically all of the really important pictures which have been published are from Kodak negatives.

To this fact we have the testimony of an array of brilliant correspondents and enterprising publishers. The new facts that are coming out almost daily show the exceptional reliability of the Kodak,—its adaptation to work of the most important character.

We opine that in future little will be heard from those who in the past, for pecuniary reasons, have proclaimed in their writings that "Kodaks are never used for serious work."

#### A PERFECT SLIDE

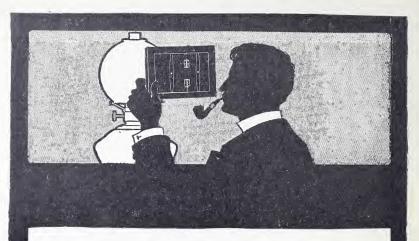
A clever photographer may make a good picture with a rickety camera and an inferior lens or even with no lens at all; he may sometimes hit it luckily and make an "artistic" print on a poor piece of photographic paper,—but

when it comes to making lantern slides, the quality must be upon the glass or his task is hopeless.

Delicate gradation, fine grain, crispness without harshness, a thin crystal glass support and absolute freedom from mechanical blemishes are the essential qualities of a good slide. All these qualities are combined in Eastman's Lantern Slide Plates—for nearly two decades the standard of quality.

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lation.



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